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Version 1.42stv



## **INDEX SYSTEMS INC.**

# **GUIDE Plus+™ System**

## User Interface Design

## **GUIDE Plus+ Picture-in-Guide Version (PY 98)**

## **Blue/Green Action Buttons**

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Version 1.42stv

February 13, 1998

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## 1.0 Introduction

This document provides the details of how the GUIDE Plus+ user interface looks and is controlled. It is not intended to outline the complete set of OEM requirements.

This document contains the following specifics:

- Overview of Guide screen components
- Remote control navigation, actions, and tables.
- Screen shots and descriptions (to follow)

This document focuses on the GUIDE Plus+ Picture-In-Guide (PIG) version available as of Production Year 1998, using the GS-301 hardware platform.

The GUIDE Plus+ system is a technology developed by Index Systems Inc., a subsidiary of Gemstar International Group Ltd. The system is designed to provide an interactive electronic program guide to consumers. In addition to its primary program guide function, the GUIDE Plus+ system also provides a program recording function. Furthermore, the GUIDE Plus+ system is designed as a platform to deliver additional information to the customer.

Document ID: 00000000

## 2.0 Definitions

**Definition:** "Guide98" is the code name for the Production Year 1998 User Interface of GUIDE Plus+.

**Definition:** "Screen" is the GUIDE Plus+ user interface presented on the TV screen.

**Definition:** "Information Box" is the textual area located near the top of a screen in which descriptive or help text is displayed.

**Definition:** "Grid" is the area of the Guide containing Show Titles, Channel Logos, show Day and Time labels, and Channel Ads.

**Definition:** "Panel Ad" is an ad covering 1/9<sup>th</sup> or 2/9<sup>ths</sup> of a screen located on the left-hand side of the screen, below the Video Window.

**Definition:** "Channel Ad" is an ad located within the channel listings.

**Definition:** "Action Buttons" are the context sensitive buttons located on the remote and labeled at the top of the screen providing, but not limited to, the functions of Record, Watch, Lock/Unlock Video Window.

**Definition:** "Action Bar" is the area along the top of the screen containing the action buttons and labels and product logo.

**Definition:** "Destination Buttons" are the buttons located below and adjacent to the information box which provide access to other destinations in the Guide such as Themes, Record List, Setup, Messages, Channel Editor and the Guide.

**Definition:** "Menu Bar" is the area in which the Destination Buttons are located.

**Definition:** "Tiles" are the on-screen Guide components which the user can highlight by pressing the up/down, left/right and in certain cases other optional buttons on the remote. Examples of tiles are: the title tiles, the panel ads, the destination buttons.

**Definition:** "Highlight" is the term used to describe the look of the screen tile on which the remote will act if an action button or the Select key is pressed.

## 3.0 General Screen Components

Screens are comprised of several distinct areas. Not all screens contain all of the following components. Screens displaying the components of each individual screen can be found in section 4.6. The major components are:

### 3.1 Video Window Area

The Video Window is located in the top left corner, occupies 1/9th of the screen and contains the following elements:

- 3.1.1 Video display of a channel.
- 3.1.2 A “lock” icon when the show in the window is locked.
- 3.1.3 A 12 hour clock without AM/PM designation.

### 3.2 Guide Areas

The Guide area covers the right-hand 2/3rds of the screen and consists of 4 distinct areas:

- 3.2.1 The Guide Data area located directly below the Menu Bar occupies the majority of the Guide area. It consists of a “table” of data. The table for each destination (Grid, Sort, Schedule, Messages, Editor and Setup) differs to meet the requirements of the destination.
  - 3.2.1.1 Grid data area:
    - Column headings from left to right are: the day of the week (abbreviated), followed by two half-hour time slots labeled in the form “11:30 PM.”
    - Directly below the day of the week is a column of channel logos. In the event that a station does not have a logo, the station call letters will be displayed (4 letter maximum). The channels will be displayed in a pre-defined order. The first channel is always labeled “Last Channel” and is the channel that the user was watching before entering the guide.
    - Directly below the half-hour time headings are the show title tiles. Titles are in the condensed version of the larger of the two font sizes. Titles are truncated as needed and followed by ellipsis when truncation is required.
    - A Channel Ad may occupy a channel slot in the Guide Grid. There may be multiple Channel ads in a grid but they generally will be spaced so that no more than one is visible at a time. When a Channel ad is highlighted, the information box displays text related to the ad.
  - 3.2.1.2 Sort data area:
    - First Level:
      - Labels from left to right are: category to the left (if there is one), label for the currently displayed category, category to the right (if there is one).
      - Centered below the category heading for the current screen is a list of sub-categories beginning with the “All” sub-category and followed by all other sub-categories in alphabetical order.
    - Second Level:
      - Headings from left to right are: the currently displayed category and sub-category, left justified; and the day and date, right justified.

- Directly below the category heading is a column of channel logo/call letters.
- To the right of the channel logos/call letters are titles of shows for this sub-category.
- To the right of the show titles is the start time for each show.

#### 3.2.1.3 Schedule data area:

- Labels from the left to right are: Record/Watch Schedule label, left justified; Frequency, right justified.
- Directly below is a list of all shows set to record or scheduled to watch in chronological order. The list includes the following information from left to right: show date, time, title and frequency. The background color of the listing indicates whether the show is set to record (red background) or watch (orange background).

#### 3.2.1.4 Messages data area:

- The list of messages has the heading "Messages," left justified.
- The messages follow in a list, one message per line.
- The last message is always entitled "Serial Number."

#### 3.2.1.5 Editor data area:

- The list of channels in the Editor has the heading "Channel Editor," left justified.
- The channels in the user's lineup follow in the same order in which they are listed in the Grid, one channel per line.
- The information for each channel includes from left to right: the station call letters, the channel number to which the user must tune to access this station and the state of the channel, on or off. If a channel state is on, the background color of the tile is blue, if the channel state is off, the background color of the tile is gray.

#### 3.2.1.6 Setup data area:

The setup screens consist of a series of questions providing the user the ability to set initial settings, modify current settings, or view the demo. The items in setup include: country, ZIP or Postal Code, cable service, cable box brand and cable box output, and VCR brand.

3.2.2 The Action Button Bar located at the top of the screen includes from left to right, labels for the "1, 2, 3" action button functions and the GUIDE Plus+ logo.

3.2.3 The Information Box, located below the action bar, displays information about shows or ads or help text when a destination button is highlighted. The Information Box automatically displays first level information regarding shows and automatically expands when a Panel Ad is selected (see section 3.3 for more information on Panel ads).

##### 3.2.3.1 First level show information includes:

The show title, MPAA or Parental Guideline ratings, critics star ratings for movies, description, (lead stars and director and year for movies), channel call letters, tuning channel number, start time, duration, icons for stereo, closed caption, and the "i" icon indicating there is more information when appropriate.

3.2.3.2 Second level information, accessed by pressing the Info. key, includes additional show description if any, the PlusCode if applicable, and lists the shows next on the channel until the remaining space in the first expanded info. box is filled.

3.2.4 The Menu Bar, located directly below the Information Box, includes destination buttons to access various areas within the Guide. Arrows on the left and right of the Menu Bar indicate when there are more destination buttons to the left or right that are not on screen. The Menu Bar is non-circular. The destinations are listed in the following order: Grid, Sort, Schedule, Messages, Editor, and Setup. It is anticipated that any new service

destination buttons would be inserted to the right of the Schedule button. When a destination icon is highlighted in the Menu Bar, an explanation ("help") is displayed in the info. box and the first screen of the highlighted destination button appears. The Menu Bar appears on only the first Setup screen.

3.2.4.1 Each destination has a default screen display position which is displayed whenever the service is accessed by moving the highlight to its destination button. The default displays for the destinations are as follows:

- Grid: the top of the show listings (beginning with Last Channel), in the current time slot
- Sort, first level: the first time the Sort destination button is ever highlighted: the top of the *Movies* category; subsequently the top of the *last viewed* category (second level: when a sub-category is selected, the show that began first which is currently on or next on will be displayed)
- Schedule: the top of the Schedule listings, beginning with the next scheduled program; if nothing is scheduled, a message indicating this is displayed.
- Messages: the top of the list of Messages, with the most recently received message at the top
- Editor: the top of the list of channels, displayed in the same order as they would appear in the Grid if they were all turned on
- Setup: the initial Setup screen

### 3.3 Panel Ad Area

The Panel Ad area is located on the left-hand side of the screen, below the Video Window. It occupies 2/9ths of the screen.

3.3.1 The Panel Ad area may be comprised of 2 ads, each the same size as the Video Window (1/9th of the screen) or one ad occupying 2/9ths of the screen. Borders around these ads separate them from each other and from the Video Window and the guide grid. When a panel ad is highlighted by a user, the information box expands automatically to cover the entire grid area below the action bar displaying additional ad text. The blue background behind the Action bar buttons turns gray matching the background behind the info. box text.

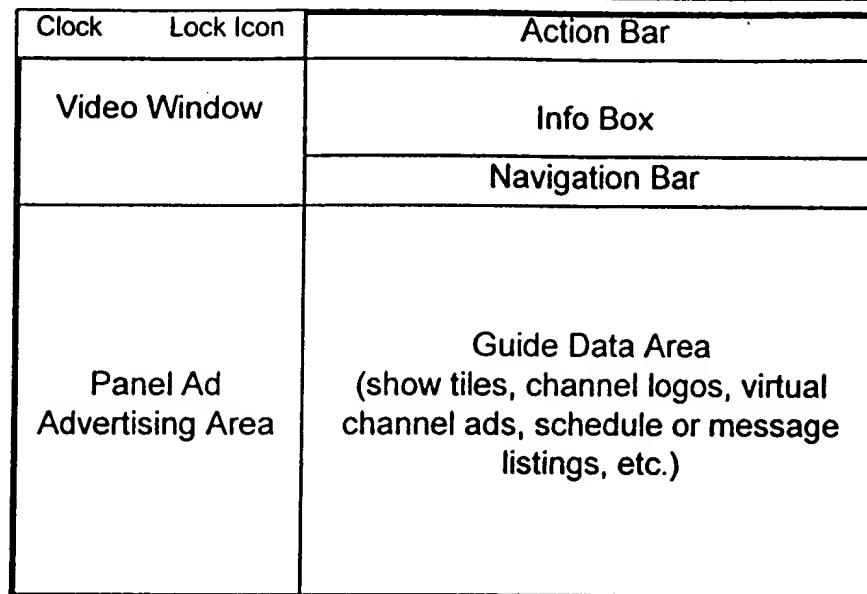


Fig. 1 : Picture-in-Guide Screen Components

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### 3.4 *Highlighting*

- 3.4.1 Tiles (a “Show” tile, a “Channel Logo”/call letter tile, Sort category tile, Message tile, or Channel tile in the Editor) have two states :
  - de-highlighted (light text on dark background), and
  - highlighted (dark text on light color background) A highlighted tile will be shown as “recessed” from the rest of the Grid.
- 3.4.2 Menu Bar Destination Buttons: Destination buttons use the same highlighting metaphor used for show tiles (3.4.1 above). When the highlight is moved off the Menu Bar, all destination buttons are displayed in the de-highlighted dark background and light text. The destination last highlighted has bevels around it. The other destinations appear to be on a flat background.
- 3.4.3 Ad areas, both Panel ads and Channel ads, do not change when highlighted or de-highlighted. When highlighted, a yellow non-beveled border surrounds an ad. When an ad is set to record this border is red (dark red when not highlighted, light red when highlighted). When an ad is scheduled to watch the border is orange (dark orange when not highlighted, light orange when highlighted).

### 3.5 *Color Schemes*

- 3.5.1 Show Tiles: have one of five thematic background color schemes (this number is subject to change as more thematic information becomes available):
  - Dark Blue background for Movies (in the Grid or Sort)
  - Green background for Sports (in the Grid or Sort)
  - Light Blue for Children’s (in the Grid or Sort)
  - Grey background for any shows on the “Last Channel” (takes precedence over thematic information)
  - Dark Teal background for any other shows (in the Grid or Sort)

- 3.5.2 Channel Logo/call letter Tiles: The logos are displayed using a 12 color palette on a gray background. If a logo is not available, black call letters (up to 4 characters maximum) are displayed on a gray background.
- 3.5.3 Menu Bar (Destination) Tiles: Gray background.
- 3.5.4 Message Tiles: may have different background colors depending upon the type of message:
  - Light Blue background for Customer Service messages, including the Serial number message.
  - Green background for Promotional messages.
  - Red background for Urgent messages (may be Customer Service messages).
  - Other colors may be used.
- 3.5.5 Channel Editor Tiles: have different colors depending upon the state of the channel:
  - Channels turned on are Light Blue.
  - Channels turned off are Gray.
- 3.5.6 Action Colors: Show tiles and ads can also be marked for "Recording" (Red color scheme) or for "Watching" (Orange color scheme). These colors take precedence over any background color schemes listed above.
  - When show tiles are marked for Recording/Watching, the background changes to red/orange. When highlighted, the background color is a light red/orange, when de-highlighted it is dark red/orange.
  - When ads, Panel ads and Channel ads, are marked for Recording/Watching, the flat border surrounding the ad changes to red/orange. When highlighted, the border are light red/orange, when de-highlighted they are dark red/orange.

## 4.0 Remote

### 4.1 Navigation Methods (See the Remote Tables for screen by screen specifics)

#### 4.1.1 Basic Navigation - Directional Arrow Movement

The primary GUIDE Plus+ navigational methodology uses up/down and left/right directional keys on the remote to move an ever-present "highlight" from "tile" to "tile" (a tile may contain a show title, an ad, a navigation destination, etc.) in the Guide.

##### 4.1.1.1 Right Directional Arrow:

- When a tile is visible to the right of the currently highlighted tile, pressing the right directional arrow moves the highlight onto that tile.
- When the highlight is on the rightmost visible column of tiles and there are more similar tiles to the right, and the right directional key is pressed, the tile or column of tiles just to the right smooth-scroll onto the screen and the leftmost column of tiles disappears.
- If the highlight is positioned on the last column of tiles (e.g. the highlight is on the last available time slot), pressing the right directional arrow does nothing.
- If the highlight is positioned on the channel column, pressing the right directional arrow moves the highlight onto the show title on that channel in the current time slot.
- If a Panel ad is highlighted, pressing the right directional arrow moves the highlight to the next column of data to the right onto the last item highlighted in that column. For example, while using the Grid, pressing the right directional arrow from a highlighted Panel ad moves the highlight to

the channel logo/call letter tile last highlighted in the channel column. (The channel from which the first Panel Ad was entered.)

#### 4.1.1.2 Left Directional Arrow:

- When a tile is visible to the left of the currently highlighted tile, pressing the left directional arrow moves the highlight onto that tile.
- If the highlight is on the leftmost visible tile or column of tiles and there are more similar type tiles to the left, and the left directional key is pressed, the tile or column of tiles just to the left smooth-scroll onto the screen and the rightmost column of tiles disappears.
- If the highlight is in the current time slot or other left column starting point (e.g. the Movies Sort Category), pressing the left directional arrow will take the highlight to the next visible tile to the left (e.g. the channel column in the Grid, or the Panel Ads from the Sort screen). Note: if moving left takes the highlight to a Panel Ad, the top Panel Ad will become highlighted from tiles to the right of it (e.g. the top 4 channels in the Grid) and the bottom Panel Ad will become highlighted from the tiles to the right of it (e.g. the bottom 5 channels in the Grid).
- If the highlight is on a Panel Ad, pressing the left directional arrow will do nothing.

#### 4.1.1.3 Up Directional Arrow:

- When a tile is visible above the currently highlighted tile, pressing the up directional arrow moves the highlight onto that tile.
- If the highlight is on the topmost visible tile or row of tiles and there are more similar type tiles above, and the up directional key is pressed, a new set of tile rows will appear a full page at a time. (e.g. 9 new tile rows in the Grid.) The highlight will appear on the bottom tile row and the same time slot if applicable.
- If the highlight is on the first entry in the list (e.g. the Last Channel tile in the Grid, or the All Movies Sort category tile), pressing the up directional arrow moves the highlight to the Menu Bar.
- If the highlight is on the Menu Bar, pressing the up directional arrow will do nothing.

#### 4.1.1.4 Down Directional Arrow:

- When a tile is visible below the currently highlighted tile, pressing the down directional arrow moves the highlight onto that tile.
- If the highlight is on the last visible tile or row of tiles and there are more similar type tiles below, and the down directional key is pressed, a new set of tile rows will appear a full page at a time. (e.g. 9 new tile rows in the Grid.) The highlight will appear on the top tile row and the same time slot if applicable.
- If the highlight is positioned so that less than a full screen is remaining off screen below in the list (e.g. less than 9 tiles in the Grid), pressing the down directional arrow will display the partial page.
- Pressing the down arrow from the last tile in such a partial page will do nothing.
- If the highlight is on the Menu Bar, pressing the down directional arrow moves the highlight to the first item in the list below.

### 4.1.2 Shortcut Navigation.

The system provides additional ways which are optional to the manufacturer to move the highlight by pressing keys other than the up/down, left/right keys.

#### 4.1.2.1 Direct Dialing

The system supports jumping the highlight from channel to channel in the Grid through direct dialing. The user, presses digit keys on the remote to jump the highlight directly to a desired channel in the guide's grid. When the highlight jumps, the entire hard page associated with the direct-dialed channel appears. As digits are dialed visual feedback is displayed in a dialog box covering the info. box. The system will expect 1, 2 or 3 digits depending upon the active channels in the user's channel lineup. Once the full number of digits is dialed, the highlight goes to the desired channel in the grid in the currently selected time slot. If there is no time slot currently selected (for example, the highlight was on a Panel ad or a destination button) the highlight jumps to the desired channel in the current time slot. If the user does not press the full number of expected digits, the system will time out without moving the highlight. If the user presses less than the expected number of digits and follows with the Select key, the highlight will go to the desired channel. If a dialed channel is not active in the user's lineup (either it is not in the lineup or it is turned off), the message "Channel not available" will appear in a dialog box in the info. box.

#### 4.1.2.2 Menu/Menu Bar Jumping

The system allows the user to jump the highlight directly to the Menu Bar by pressing the Menu key. Once the Menu key is pressed, the highlight jumps to the destination button in the menu bar associated with the currently displayed screen. The screen does not redraw.

- If the user presses the Menu key again (without any other key presses) the highlight jumps back to the last highlighted tile in that screen. This allows the user to toggle up to the menu and back if they pressed menu by mistake.
- If the user scrolls left or right once on the Menu bar, pressing the menu button highlights the first entry in the displayed screen e.g. the Last Channel in the current time slot, the first Sort category, the first Message, etc.
- Pressing the down directional arrow with a destination button highlighted as a result of pressing the Menu key moves the highlight to the first entry in the screen below.

#### 4.1.2.3 Page Up/Page Down

The system supports mapping remote keys to provide the ability to page up or down from one full set of screen information to the next.

- Page Up: When the highlight on a tile in the Grid or Sort titles, Message listings, or Editor channels and the user presses the button mapped to Page Up and there is a full page of data above, the screen fills with the new data. The highlight remains in the same relative location on screen. If there is not a full page of data above, the highlight jumps to the top entry of the currently displayed screen. Once at the top of the data listing, highlight moves onto the menu bar, from the menu bar pressing Page Up does nothing.
- Page Down: When the highlight on a tile in the Grid or Sort titles, Message listings, or Editor channels and the user presses the button mapped to Page Down and there is a full or partial page of data below, the screen fills with the new data. The highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available. If the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen. Once at the bottom of the data listing, pressing Page Down does nothing.

#### 4.1.3 The Menu Bar

The Menu Bar, accessed either by pressing the up directional arrow or page up key from the top of any set of data in a screen (for example from a Last Channel show tile) or pressing by the Menu key, provides access to all the destinations in GUIDE Plus+. By highlighting a destination button on the Menu Bar, the related destination appears on screen with no additional key presses on the remote. The Menu Bar is accessible from all screens except all but the first Setup screen, the demo screens and any time the info. box is expanded.

#### 4.1.3.1 There are three ways to move the highlight into a destination screen from the menu bar:

- Pressing the down directional arrow (expected to be the most common means of entry) in almost all cases moves the highlight to the top left entry currently displayed on the screen. The one exception is if the Menu Bar was accessed by pressing the up directional arrow while the right time slot in the Grid was highlighted and then down directional arrow was pressed with no other key presses while the highlight was on the Menu bar.
- Pressing the Select key moves the highlight to the top left entry in the currently displayed screen.
- Pressing the Menu key moves the highlight to the top left entry in the currently displayed screen or if the Menu bar was accessed by pressing the Menu key and no other keys were pressed while the highlight was on the Menu bar the highlight jumps to the last highlighted tile in the currently displayed screen. See section 4.1.2.2 above for details.

#### 4.1.3.2 Default Destination: Once a destination button is highlighted, the screen displays the default position for that screen as follows:

- Grid: The top of the screen (starting with Last Channel, ABC, etc.) on the current day, in the current time slot.
- Sort: The last used Sort category (Movies, Sports or Children's), the top of the screen (first sub-category in the Sort category). Additionally, when a Sort sub-category is entered, the highlight is on the first entry.
- Schedule: The top of the schedule.
- Messages: The top of the message list.
- Editor: The top of the list of channels in the Editor.
- Setup: The first Setup screen. Note: The menu bar is only available from the 1st setup screen.

## 4.2 Actions on Guide Tiles

### 4.2.1 Actions upon highlighted tiles in the Guide are executed by pressing specific keys on the remote as follows:

#### 4.2.1.1 "Select" Key: Tunes to a channel if the highlight is on a show title or ad with program information. If the highlight is on a destination button in the Menu Bar, pressing Select enters the requested destination screen. If the highlight is on an item in a setup screen, pressing the Select key executes the request.

#### 4.2.1.2 Action Buttons: There are two context sensitive action buttons, Blue and Green, labeled in the Action Bar. The functions of the Action Buttons change depending upon where the highlight is located. Generally, the Action Buttons are used to execute Recording, Watch, and locking and unlocking the Video Window. These buttons perform additional functions on other screens as outlined in section 4.3 and the remote tables in section 4.5.

#### 4.2.1.3 Info Button: Pressing the info button brings up more information on a selected tile (e.g. show descriptions or additional advertising text).

### 4.2.2 Scheduled Actions: Recording and Watch

- 4.2.2.1 Recording: The Recording feature allows the user to record a show in progress or scheduled to be on in the future from a highlighted show tile or ad with related show information. There is no practical limit on how far into the future an ad-related show may be scheduled to record. Shows may be set to record Once, Daily (M-F) or Weekly.
- 4.4.2.1.1 A show is recorded by pressing the Green action button while the show tile or ad is highlighted. Pressing the Green action button causes the highlight of the tile to turn red, the info. box background to turn green, a message to appear in the info. box indicating the show is set to record once, the label on the Blue action button to change to "Cancel," and the label on the Green action button to change to "Schedule." If a show is already set to record or watch in this time slot, different actions will occur as follows: the highlight of the tile does not change, the info. box background turns red, a conflict message appears in the info. box, there is no label on the Blue action button, the label on the Green action button changes to "Schedule."
- 4.4.2.1.2 The user may cancel the recording by pressing the Blue action button before moving the highlight off the tile. Once the highlight is moved off the tile, the user must enter the Schedule to remove a show. Additionally, recording of any show may be canceled before it commences by removing the title from the Schedule. A recording in progress may be stopped by entering the Schedule, highlighting the title of the show and pressing the Blue action button labeled "Stop." If the show was set to record once, this also removes the show title from the Schedule, if it was set to record daily or weekly, the title remains and the Blue action button label changes to "Remove."
- 4.4.2.1.3 The user may enter the Schedule by pressing the Green action button with any show set to record or watch highlighted, or via the Schedule destination button on the menu. The default record frequency is once; from the Schedule, the user may select a record frequency of once, daily or weekly.
- 4.4.2.1.4 In the event that the show is currently on, pressing the Green action button while highlighting a show or ad immediately commences recording of the show in progress; the show title is also placed in the Record Schedule until the show ends to enable the user the ability to modify the record frequency to daily or weekly.
- 4.4.2.1.5 The title of a show set to record is displayed in the Schedule whenever the title is stored in the guide's database. In the event a show title is not in the database (e.g. the ad related show is too far in the future or a once-a-week show such as ER is set to record Weekly on Thursdays and it is now Friday) the Schedule will display the channel call letters and tuning number instead of a title. If the start time or duration of a show scheduled to record is changed, the words "Schedule Changed" will appear instead of a title, a message explaining this will appear in the info. box, and the record event will be ignored.
- 4.2.2.2 Watch (Auto-tune): The Watch feature allows the user to watch a show in progress or schedule for future viewing from a highlighted show tile or ad with related show information. There is no practical limit on how far into the future an ad-related show may be scheduled to watch. Shows may be scheduled to Watch Once, Daily (M-F) or Weekly. The Watch feature operates much the

same way as the Record feature, except that instead of recording it tunes the TV to the show rather than recording it. If a user is watching TV, the channel automatically changes to a show placed in the Watch Schedule when the show begins. Once the show ends, the TV remains on. If the TV is turned off when a show in the Watch Schedule is scheduled to begin, the TV is turned on and tuned to the desired channel; when the show ends the TV remains on if the user has pressed any remote control keys while viewing the show, if no remote keys were pressed while the watched show was on, the TV will turn off. If the user is using the Guide when a scheduled watch show begins, the Guide is exited and the desired show tuned.

- 4.4.2.2.1 A show is scheduled to watch by pressing the Blue action button while the show tile or ad is highlighted. Pressing the Blue action button causes the highlight of the tile to turn orange, the info. box background to turn green, a message to appear in the info. box indicating the show is set to watch once, the label on the Blue action button to change to "Cancel," and the label on the Green action button to change to "Schedule." If a show is already set to record or watch in this time slot, different actions will occur as follows: the highlight of the tile does not change, the info. box background turns red, a conflict message appears in the info. box, there is no label on the Blue action button, the label on the Green action button changes to "Schedule."
- 4.4.2.2.2 The user may cancel the scheduled watch by pressing the Blue action button before moving the highlight off the tile. Once the highlight is moved off the tile, the user must enter the Schedule to remove a show. Additionally, watch scheduling of any show may be canceled before it commences by removing the title from the Schedule.
- 4.4.2.2.3 The user may enter the Schedule by pressing the Green action button with any show set to record or watch highlighted, or via the Schedule destination button on the menu. The default watch frequency is once; from the Schedule, the user may select a watch frequency of once, daily or weekly.
- 4.4.2.2.4 In the event that the show is currently on, pressing the Green action button while highlighting a show or ad immediately commences viewing of the show in progress; the show title is also placed in the Schedule until the show ends to enable the user the ability to modify the watch frequency to daily or weekly.
- 4.4.2.2.5 The title of a show set to watch is displayed in the Schedule whenever the title is stored in the guide's database. In the event a show title is not in the database (e.g. the ad related show is too far in the future or a once-a-week show such as ER is set to watch Weekly on Thursdays and it is now Friday) the Schedule will display the channel call letters and tuning number instead of a title. If the start time or duration of a show scheduled to watch is changed, the words "Schedule Changed" will appear instead of a title, a message explaining this will appear in the info. box, and the watch event will be ignored.

#### 4.3 Locking and Unlocking the Video Window

- 4.3.1 The Video Window may be locked or unlocked using the Blue action button from the Grid screen or by pressing the PIP key (optional) on the remote from the Grid screen.

The state, once established persists while using other areas of the Guide except that the Editor will always default to Unlocked when entered as an aid to channel editing (the Video Window will return to it's earlier state when the Editor is exited) or when a show is currently recording through a user's cable box which locks the Video Window on the recorded show.

- 4.3.2 There are two ways to change the state of the Video Window:
  - 4.3.2.1. The state is toggled between locked and unlocked by highlighting a channel tile in the Grid's channel column and pressing the Blue action button. Unlocking may occur with any channel tile highlighted, locking a specific channel requires that channel to be highlighted OR
  - 4.3.2.2 Pressing the PIP key on the remote while the Grid is displayed (optional).
- 4.3.3 When the Video Window is locked, a padlock icon appears in the top right corner of the Video Window. When the Video Window is in the locked state, this icon persists on all other screens in the Guide except when entering the Editor where the Video Window is unlocked by default. When the Video Window is unlocked, no icon is displayed.
- 4.3.4 When any tile in the channel column is highlighted, the info. box indicates the state of the Video Window and on which channel it is locked if any.

#### 4.4 *Remote Control Key Set*

##### 4.4.1 Required Remote Control Keys

All interfaces must include the following physical keys:

- 4.4.1.1 **GUIDE** key for activating and deactivating the GUIDE Plus+ system.
- 4.4.1.2 **Left / Right / Up / Down** directional controls (arrow keys)
- 4.4.1.3 **Select** key
- 4.4.1.4 **Action buttons: Blue, Green**
- 4.4.1.5 **Info** key for displaying second level program and advertising information.
- 4.4.1.6 **VCR Plus+** key for using VCR Plus+ recording.

##### 4.4.2 Optional Remote Control Keys

Manufacturers may provide the following optional keys:

- 4.4.2.1 **Menu** key to provide ability to jump the highlight to the Menu Bar from any location in the Guide.

##### 4.4.3 Additional IIC Commands Supported by GUIDE Plus+ 98.

These commands may be mapped to "reasonable" remote keys at the discretion of the manufacturer:

- 4.4.3.1 **Page Up / Down** keys to provide faster navigation up and down lists in the Guide.

##### 4.4.4 Suggested Additional Key Mapping.

These command/key combinations may be mapped at the discretion of the manufacturer:

- 4.4.4.1 **Channel Up / Down** keys may be mapped to directional Up / Down or Page Up / Down commands.
- 4.4.4.2 **Numeric** keys may be mapped to support direct dialing of channels in the grid.
- 4.4.4.3 **Record** key may be mapped to support the guide recording feature.

4.4.4.4 PIP key may be mapped to support locking and unlocking of the Video Window while in the Grid

4.4.4.5 Clear (Cancel, etc.) may be mapped to Last Channel

4.4.5 Key Function in TV Mode

4.4.5.1 The required key set keys may have different functions when the TV is in TV mode (watching TV) than they do when the TV is in Guide mode (the Guide is on screen).

## 4.5 Remote Tables

Table 1 - Watching TV

Remote Key	Watching TV
up key	NA
down key	NA
left key	NA
right key	NA
Select key	NA
Guide key	<ul style="list-style-type: none"> <li>1. if the Guide has been set up and a full set of lineup and program data has been received, enters the Guide, the Guide Grid appears</li> <li>2. if the Guide has been set up and lineup and/or program data has not been received, the first Guide setup screen is displayed with a "No Data" message specifying what data has not yet been received appearing in the Info. box region of the screen. The menu bar is visible and accessible allowing the user to enter the Message area to access diagnostic information.</li> <li>3. if the Guide has not yet been setup, enters the first Guide setup screen</li> </ul>
Info	NA
Blue Action Button	NA
Green Action Button	NA
digit keys	NA
VCR Plus+	<ul style="list-style-type: none"> <li>1. if the Guide has been set up and a full set of lineup and program data has been received, brings up the VCR Plus+ entry screen (this is part of the Record/Watch Schedule screen) without a menu bar</li> <li>2. if the Guide has been set up and lineup and/or program data has not been received, the first Guide setup screen is displayed with a "No Data" message specifying what data has not yet been received appearing in the Info. box region of the screen. The menu bar is visible and accessible allowing the user to enter the Message area to access diagnostic information.</li> <li>3. if the Guide has not yet been setup, enters the first Guide setup screen</li> </ul>
Optional Keys	
Menu	NA
Record	If desired by manufacturer, operates the same as the VCR Plus+ key
Page up	NA
Page down	NA
Channel up	NA
Channel down	NA
Clear	NA
PIP	NA

Table 2 - Using the Grid Screen

The Grid provides access to two days of show listings organized by time and channel. When a show channel is highlighted, related information is displayed in the Info. Box.

Remote Key	Grid Screen
up key	<ol style="list-style-type: none"> <li>if show tile or channel ad is highlighted, moves up to the next show tile (unless the Last Channel is highlighted, see 2 below) until the topmost visible tile is highlighted, then a full page of new tiles appear with the bottom row highlighted in the same time slot</li> <li>if the Last Channel is highlighted, moves up to the Grid destination button</li> <li>if destination button is highlighted, nothing happens</li> <li>if bottom panel ad highlighted, moves up to top panel ad</li> <li>if top panel ad is highlighted, nothing happens</li> </ol>
down key	<ol style="list-style-type: none"> <li>if show tile or channel ad is highlighted, moves down to the next show tile until the last visible show tile is reached, then a full page of new tiles appears with top row highlighted in the same time slot; if the last show tile in the list is highlighted, nothing happens</li> <li>if destination button is highlighted, moves down to the top visible channel in the Grid in the left-hand time slot or on the right-hand time slot if the user had just entered the menu bar from this position</li> <li>if top panel ad is highlighted, moves down to bottom panel ad</li> <li>if bottom panel ad is highlighted, nothing happens</li> </ol>
left key	<ol style="list-style-type: none"> <li>if show tile or channel ad in current time slot is highlighted, moves to the channel column; if the right-hand time slot is highlighted, moves left to the left time slot; if a future time in the left-hand time slot is highlighted, smooth scrolls <math>\frac{1}{2}</math> hour of prior time slot listings on screen and moves highlight onto this column</li> <li>if one of top 4 channel column tiles is highlighted, moves highlight to top panel ad; if one of bottom 5 channel column tiles is highlighted, moves highlight to bottom panel ad.</li> <li>if Grid destination button is highlighted, nothing happens as Grid is the leftmost destination button.</li> <li>if panel ad is highlighted, nothing happens</li> </ol>
right key	<ol style="list-style-type: none"> <li>if show tile or channel ad in current time slot is highlighted, moves right to the next time slot; if the right-hand time slot is highlighted (and this is not the last time slot in the data), smooth scrolls the next <math>\frac{1}{2}</math> hour time slot on screen and moves highlight onto this column; if show tile is last time slot, nothing happens</li> <li>if channel column tile is highlighted, moves to current time slot for that channel</li> <li>if Grid destination button is highlighted, highlight moves right to the Sort button and the First-level Sort screen is displayed</li> <li>if panel ad is highlighted, moves to the channel in the channel column from which the first panel ad was accessed</li> </ol>
Select key	<ol style="list-style-type: none"> <li>if show tile, channel tile, or ad with show related info. is highlighted, exits guide, tunes TV to related channel; if ad does not have related show info., nothing happens</li> <li>if Grid destination tile in Menu Bar is highlighted, redraws the top of the screen in the current time slot (if not currently displayed), highlight jumps to the first entry in the screen</li> </ol>
Guide key	exits the guide, and tunes TV to channel displayed in the Video Window
Info	<ol style="list-style-type: none"> <li>if highlighting a show tile or channel ad and an "i" icon is displayed in the info. box, causes info. box to expand and display 2nd level information; subsequent presses cycle through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> </ol>

	<p>2. if highlight is on a Panel ad, cycles through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</p> <p>3. if an "i" icon is not displayed in the info. box (this will always be the case when the highlight is on the Menu bar or a channel logo and may be the case on show tiles and ads), nothing happens</p>
<b>Blue Action Button</b>	<p>1. if show tile or ad with show related info. is highlighted and not previously set to record or watch, Blue action button label is "Watch," sets the show to watch once, places show in Record/Watch Schedule, changes Blue action button label to "Cancel" and Green action button label to "Schedule," highlight and time slot header turn orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></p> <p>2. if a show tile or ad was just set to record or watch, pressing the Blue action button again <i>without leaving</i> the tile will Cancel the recording or watch scheduling, change the Blue action button label back to "Watch" and the Green action button label to "Record," highlighting back to the standard highlighting, info. box returns to gray background with original text</p> <p>3. if show tile or ad with show related info. is highlighted and was <i>previously</i> set to record or watch, the Blue action button label is blank, nothing happens</p> <p>4. if Panel ad or Channel ad without show related info. is highlighted, the action button label is blank, nothing happens</p> <p>5. if destination button is highlighted, the Blue action button label is blank, nothing happens</p> <p>6. if channel in channel column is highlighted, the Video Window state will toggle between locked and unlocked</p>
<b>Green Action Button</b>	<p>1. if show tile or ad with show related info. is highlighted and not previously set to record or watch, Green action button label is "Record," sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to "Schedule," Blue action button label to "Cancel," highlight and time slot header turn red, info. box background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></p> <p>2. if show tile or ad is highlighted and set to record or watch, the Green action button label is "Schedule," pressing the Green action button brings up the Record/Watch Schedule screen with this show highlighted</p> <p>3. if ad without show related info. is highlighted, action bar label is blank, nothing happens.</p> <p>4. if Grid destination button is highlighted, the Green action bar label is blank, nothing happens</p> <p>5. if channel in channel column is highlighted, nothing happens</p>
<b>digit keys</b>	<p>1. if a show tile or channel ad is highlighted, digits appear in a dialog box covering the info. box as they are dialed, once the expected number of digits are entered and if the numbers dialed represent an active channel in the user's channel lineup, the highlight jumps to the show tile in the currently selected time slot; if the dialed channel is not active in the user's lineup (it is not in the lineup or it is turned off), the message "Channel not available" will appear in the info. box; if the user dials less than the expected number of channels and then presses the Select key, the above outlined behavior will occur, if the user dials less than the expected number of digits and does not press the Select key, the digit dialog box will disappear after a time out</p>

	period and the highlight will not move 2. if a Panel ad or a destination button is highlighted, nothing happens
VCR Plus+	functions the same as pressing the Green action button
Optional Keys	
Menu	1. if highlight not on the Menu Bar (on a show tile, a Panel ad, etc.), jumps highlight to the Grid destination button in the Menu Bar, the screen does not redraw 2. if highlight on the Menu Bar, moves highlight to Last Channel in the current time slot except as noted in 3 below 3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the Grid or on a Panel ad
Record	functions the same as pressing the Green action button
Page up	1. if there is a page of channels above, the screen fills with a completely new set of the next 9 channels above, the highlight remains in the same relative location on screen; if there is not a page of data above, the highlight jumps to the top entry of the currently displayed screen; once at the top of the list, highlight moves to the menu bar; from the menu bar, pressing Page Up does nothing 2. if a panel ad is highlighted, nothing happens
Page down	1. if Grid destination button highlighted, moves down to the top visible channel in the Grid in the left-hand time slot or on the right-hand time slot if the user had just entered the menu bar from this position 2. if a show tile is highlighted and there is a full or partial page of channels below, the screen fills with a new set of the next 9 channels or a partial page of the channels below, the highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available; if the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen; once at the bottom of the list, pressing Page Down does nothing 3. if a panel ad is highlighted, nothing happens
Channel up	mapped to Directional Up or Page Up
Channel down	mapped to Directional Down or Page Down
Clear	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
PIP	toggles the state of the Video Window between lock and unlock

Table 3 - Using First-Level Sort Screen

The First-level Sort screens provide access to the sort categories: Movies, Sports and Children's as well as their related sub-categories. Note: the categories are not circular to allow access to the ads. Their order from "left to right" is: Movies, Sports, Children's. When the Sort destination button is highlighted for the first time ever, the Movies category is displayed, thereafter the last category used becomes the default and is displayed when the Sort destination button is highlighted.

Remote Key	First-Level Sort Screens
up key	<ol style="list-style-type: none"> <li>1. if sub-category tile is highlighted, moves up to the next sub-category tile (unless the top sub-category tile is highlighted, see 2 below) until the topmost visible tile is highlighted, then a full page of new sub-category tiles appear with the bottom row highlighted</li> <li>2. if the top sub-category tile is highlighted, moves up to the Sort destination button</li> <li>3. if Sort destination button is highlighted, nothing happens</li> <li>4. if bottom panel ad highlighted, moves up to top panel ad</li> <li>5. if top panel ad is highlighted, nothing happens</li> </ol>
down key	<ol style="list-style-type: none"> <li>1. if sub-category tile is highlighted, moves down to the next sub-category tile until the last visible sub-category tile is reached, then a full page of new sub-category tiles appears with the top row highlighted; if the last sub-category tile in the list is highlighted, nothing happens</li> <li>2. if destination button is highlighted, moves down to the top sub-category, All.</li> <li>3. if top panel ad is highlighted, moves down to bottom panel ad</li> <li>4. if bottom panel ad is highlighted, nothing happens</li> </ol>
left key	<ol style="list-style-type: none"> <li>1. if in the Movies category and one of top 4 sub-category tiles highlighted, moves to top panel ad; if one of bottom 5 sub-category tiles is highlighted, moves to bottom panel ad</li> <li>2. if in the Sports or Children's sub-categories: moves to the top of the category to the left</li> <li>3. if Sort destination button is highlighted, the highlight moves left to the Grid button and the Grid appears on screen</li> <li>4. if panel ad is highlighted, nothing happens</li> </ol>
right key	<ol style="list-style-type: none"> <li>1. if in the Movies or Sports sub-categories: moves to the top of the category to the right</li> <li>2. if in the Children's category, nothing happens</li> <li>3. if Sort destination button is highlighted, the highlight moves right to the Schedule button and the Record/Watch Schedule appears on screen</li> <li>4. if panel ad is highlighted, moves to the Movies category tile from which the first panel ad was accessed</li> </ol>
Select key	<ol style="list-style-type: none"> <li>1. if sub-category tile is highlighted, brings up list of shows in that sub-category</li> <li>2. if Panel ad with show related info. is highlighted, exits guide, tunes TV to related channel; if ad does not have related show info., nothing happens</li> <li>3. if Sort destination tile in Menu Bar is highlighted, redraws the top of the screen (if not currently displayed), highlight jumps to the first entry in the screen</li> </ol>
Guide key	exits the guide, and tunes TV to channel displayed in the Video Window
Info	<ol style="list-style-type: none"> <li>1. if highlight is on a Panel ad, cycles through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>2. if an "i" icon is not displayed in the info. box (this will always be the case when the highlight is on the Menu bar or a sub-category tile and may be the case for Panel ads), nothing happens</li> </ol>
Blue Action Button	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Blue action button label is "Watch," sets the show to watch once, places</li> </ol>

	<p>show in Record/Watch Schedule, changes Blue action button label to "Cancel" and Green action button label to "Schedule," highlight turns orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></p> <ol style="list-style-type: none"> <li>2. if a Panel ad was just set to record or watch, pressing the Blue action button again <i>without leaving</i> the Panel ad will Cancel the recording or watch scheduling, change the Blue action button label back to "Watch" and the Green action button label to "Record," highlighting back to the standard highlighting, info. box returns to gray background with original text</li> <li>3. if Panel ad with show related info. is highlighted and was <i>previously</i> set to record or watch, the Blue action button label is blank, nothing happens</li> <li>4. if panel ad without show related info. is highlighted, the action button label is blank, nothing happens</li> <li>5. if destination button is highlighted, the Blue action button label is blank, nothing happens</li> <li>6. if a sub-category tile is highlighted, the Blue action button label is blank, nothing happens</li> </ol>
<b>Green Action Button</b>	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Green action button label is "Record," sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to "Schedule," Blue action button label to "Cancel," highlight and time slot header turn red, info. box background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>2. if Panel ad is highlighted and set to record or watch, the Green action button label is "Schedule," pressing the Green action button brings up the Record/Watch Schedule screen with this show highlighted</li> <li>3. if ad without show related info. is highlighted, action bar label is blank, nothing happens.</li> <li>4. if Sort destination button is highlighted, the Green action button label is blank, nothing happens</li> <li>5. if a sub-category tile is highlighted, the Green action button label is blank, nothing happens</li> </ol>
<b>digit keys</b>	NA, no direct dialing feature on this screen
<b>VCR Plus+</b>	functions the same as pressing the Green action button
<b>Optional Keys</b>	
<b>Menu</b>	<ol style="list-style-type: none"> <li>1. if highlight not on the Menu Bar (on a sub-category tile, a Panel ad, etc.), jumps highlight to the Sort destination button in the Menu Bar, the screen does not redraw</li> <li>2. if highlight on the Menu Bar, moves highlight to the top sub-category tile, All, except as noted in 3 below</li> <li>3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the Category list or on a Panel ad</li> </ol>
<b>Record</b>	functions the same as pressing the Green action button
<b>Page up</b>	<ol style="list-style-type: none"> <li>1. if there is a page of sub-categories above, the screen fills with a completely new set of the next 9 categories above, the highlight remains in the same relative location on screen; if there is not a page of data above, the highlight jumps to the top entry of the currently displayed screen; once at the top of the list, highlight moves to the</li> </ol>

	menu bar; from the menu bar, pressing Page Up does nothing 2. if a panel ad is highlighted, nothing happens
Page down	1. if the destination button is highlighted, moves down to the first visible entry in the screen 2. if a sub-category tile is highlighted and there is a full or partial page of sub-categories below, the screen fills with a new set of the next 9 sub-categories or a partial page of the sub-categories below, the highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available; if the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen; once at the bottom of the list, pressing Page Down does nothing 3. if a panel ad is highlighted, nothing happens
Channel up	mapped to Directional Up or Page Up
Channel down	mapped to Directional Down or Page Down
Clear	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
PIP	nothing happens

**Table 4 - Using Second-Level Sort Screen**

The second-level Sort screens provide lists of shows for eight days forward for the selected sub-category. The same information provided in the Info. Box when in the Grid for a given show is also available from here. Shows can be scheduled to record or watch.

Note: When a show tile is highlighted, its channel tile is simultaneously highlighted. Any references below to "show tiles" are meant to imply the combination of the show tile and its related channel tile.

<b>Remote Key</b>	<b>Second-Level Sort Screens</b>
<b>up key</b>	<ol style="list-style-type: none"> <li>1. if show tile is highlighted, moves up to the next show tile (unless the top show tile is highlighted, see 2 below) until the topmost visible show tile is highlighted, then a full page of new show tiles appear with the bottom row highlighted</li> <li>2. if the top show tile is highlighted, moves up to the Sort destination button</li> <li>3. if Sort destination button is highlighted, nothing happens</li> <li>4. if bottom panel ad highlighted, moves up to top panel ad</li> <li>5. if top panel ad is highlighted, nothing happens</li> </ol>
<b>down key</b>	<ol style="list-style-type: none"> <li>1. if show tile is highlighted, moves down to the next show tile until the last visible show tile is reached, then a full page of new show tiles appears with the top row highlighted; if the last show tile in the list is highlighted, nothing happens</li> <li>2. if destination button is highlighted, moves down to the top show tile</li> <li>3. if top panel ad is highlighted, moves down to bottom panel ad</li> <li>4. if bottom panel ad is highlighted, nothing happens</li> </ol>
<b>left key</b>	<ol style="list-style-type: none"> <li>1. if one of top 4 show tiles in the current day is highlighted, moves to top panel ad; if one of bottom 5 show tiles is highlighted, moves to bottom panel ad</li> <li>2. if a show tile is highlighted on a future day, moves to the prior day, highlighting the first of the following that exists: a) same time, same channel; b) same time, top channel; c) next time slot, same channel; d) next time slot, top channel</li> <li>3. if Sort destination button is highlighted, the highlight moves left to the Grid button and the Grid appears on screen</li> <li>4. if panel ad is highlighted, nothing happens</li> </ol>
<b>right key</b>	<ol style="list-style-type: none"> <li>1. if show tile is highlighted on any but the last day, moves to the next day, highlighting the first of the following that exists: a) same time, same channel; b) same time, top channel; c) next time slot, same channel; d) next time slot, top channel</li> <li>2. if in the last day of data, nothing happens</li> <li>3. if Sort destination button is highlighted, the highlight moves right to the Schedule button and the Record/Watch Schedule appears on screen</li> <li>4. if panel ad is highlighted, moves to the show tile from which the first panel ad was accessed</li> </ol>
<b>Select key</b>	<ol style="list-style-type: none"> <li>1. if show title, or Panel ad with show related info. is highlighted, exits guide, tunes TV to related channel; if ad does not have related show info., nothing happens</li> <li>2. if Sort destination button is highlighted, brings up the <i>First-level Sort</i> screen and highlights the last selected sub-category</li> </ol>
<b>Guide key</b>	exits the guide, and tunes TV to channel displayed in the Video Window
<b>Info</b>	<ol style="list-style-type: none"> <li>1. if highlighting a show tile and an "i" icon is displayed in the info. box, causes info. box to expand and display 2nd level information; subsequent presses cycle through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>2. if highlight is on a Panel ad, cycles through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> </ol>

	3. if an "i" icon is not displayed in the info. box, nothing happens
<b>Blue Action Button</b>	<p>1. if show title or Panel ad with show related info. is highlighted and not previously set to record or watch, Blue action button label is "Watch," sets the show to watch once, places show in Record/Watch Schedule, changes Blue action button label to "Cancel" and Green action button label to "Schedule," highlight and time slot header turn orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></p> <p>2. if a show title or Panel ad was just set to record or watch, pressing the Blue action button again <i>without leaving</i> the tile will Cancel the recording or watch scheduling, change the Blue action button label back to "Watch" and the Green action button label to "Record," highlighting back to the standard highlighting, info. box returns to gray background with original text</p> <p>3. if show title or ad with show related info. is highlighted and was <i>previously</i> set to record or watch, the Blue action button label is blank, nothing happens</p> <p>4. if Panel ad without show related info. is highlighted, the action button label is blank, nothing happens</p>
<b>Green Action Button</b>	<p>1. if show title or Panel ad with show related info. is highlighted and not previously set to record or watch, Green action button label is "Record," sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to "Schedule," Blue action button label to "Cancel," highlight and time slot header turn red, info. box background turns red and message indicates record accepted, info. box background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></p> <p>2. if show title or Panel ad is highlighted and set to record or watch, the Green action button label is "Schedule," pressing the Green action button brings up the Record/Watch Schedule screen with this show highlighted</p> <p>3. if Panel ad without show related info. is highlighted, action bar label is blank, nothing happens.</p> <p>4. if Sort destination button is highlighted, the Green action button label is blank, nothing happens</p>
<b>digit keys</b>	NA, no direct dialing feature on this screen
<b>VCR Plus+</b>	functions the same as pressing the Green action button
<b>Optional Keys</b>	
<b>Menu</b>	<p>1. if highlight not on the Menu Bar (on a show tile, a Panel ad, etc.), jumps highlight to the Sort destination button in the Menu Bar, the screen does not redraw</p> <p>2. if highlight on the Menu Bar, moves highlight to the top show tile, except as noted in 3 below</p> <p>3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the show list or on a Panel ad</p>
<b>Record</b>	functions the same as pressing the Green action button
<b>Page up</b>	<p>1. if there is a page of show tiles above, the screen fills with a completely new set of the next 9 show tiles above, the highlight remains in the same relative location on screen; if there is not a page of data above, the highlight jumps to the top entry of the currently displayed screen; once at the top of the list, highlight moves to the menu bar; from the menu bar, pressing Page Up does nothing</p>

	2. if a panel ad is highlighted, nothing happens
Page down	1. if the destination button is highlighted, moves down to the first visible entry in the screen 2. if a show tile is highlighted and there is a full or partial page of show tiles below, the screen fills with a new set of the next 9 show tiles or a partial page of the show tiles below, the highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available; if the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen; once at the bottom of the list, pressing Page Down does nothing 3. if a panel ad is highlighted, nothing happens
Channel up	mapped to Directional Up or Page Up
Channel down	mapped to Directional Down or Page Down
Clear	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
PIP	nothing happens

**Table 5 - Using Record/Watch Schedule Screen**

Shows scheduled to record or watch appear in the Record/Watch Schedule. The shows tile backgrounds are color coded to identify if they are scheduled to record (red) or watch (orange). Users may change recording or watch frequencies and remove shows from the schedule from this screen. The VCRPlus+ entry can also be accessed from this screen.

<b>Remote Key</b>	<b>Record/Watch Schedule Screen</b>
<b>up key</b>	<ol style="list-style-type: none"> <li>1. if scheduled show tile highlighted, moves up to the next scheduled show title (unless the top scheduled show tile is highlighted, see 2 below) until the topmost visible scheduled show tile is highlighted, then a full page of new tiles appear with the bottom row highlighted</li> <li>2. if the top scheduled show tile is highlighted, moves up to the Schedule destination button</li> <li>3. if Schedule destination button is highlighted, nothing happens</li> <li>4. if bottom panel ad highlighted, moves up to top panel ad</li> <li>5. if top panel ad is highlighted, nothing happens</li> </ol>
<b>down key</b>	<ol style="list-style-type: none"> <li>1. if scheduled show tile is highlighted, moves down to the next scheduled show tile until the last visible scheduled show tile is reached, then a full page of new title tiles appears with top row highlighted; if the last scheduled show tile in the list is highlighted, nothing happens</li> <li>2. if Schedule destination button is highlighted, moves down to the top scheduled show tile in the Schedule; if no shows in the schedule list, nothing happens</li> <li>3. if top panel ad is highlighted, moves down to bottom panel ad</li> <li>4. if bottom panel ad is highlighted, nothing happens</li> </ol>
<b>left key</b>	<ol style="list-style-type: none"> <li>1. if one of top 4 scheduled show tiles is highlighted, moves to top panel ad; if one of bottom 5 scheduled show tiles is highlighted, moves to bottom panel ad; if there are no scheduled show tiles, the panel ads can not be highlighted</li> <li>2. if Schedule destination button is highlighted, the highlight moves left to the Sort button and the First-level Sort screen appears on screen</li> <li>3. if panel ad is highlighted, nothing happens</li> </ol>
<b>right key</b>	<ol style="list-style-type: none"> <li>1. if highlight on a scheduled show tile, nothing happens</li> <li>2. if Schedule destination button is highlighted, the highlight moves right to the Messages button and the Messages list appears</li> <li>3. if panel ad is highlighted, moves to the scheduled show tile from which the first panel ad was accessed</li> </ol>
<b>Select key</b>	<ol style="list-style-type: none"> <li>1. if scheduled show tile is highlighted, nothing happens</li> <li>2. if Panel ad with show related info. is highlighted, exits guide, tunes TV to related channel; if ad does not have related show info., nothing happens</li> <li>3. if Schedule destination tile in Menu Bar is highlighted, redraws the top of the screen (if not currently displayed), highlight jumps to the first entry in the screen</li> </ol>
<b>Guide key</b>	exits the guide, and tunes TV to channel displayed in the Video Window
<b>Info</b>	<ol style="list-style-type: none"> <li>1. if highlighting a scheduled show tile and an "i" icon is displayed in the info. box, causes info. box to expand and display 2nd level information; subsequent presses cycle through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>2. if highlight is on a Panel ad, cycles through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>3. if an "i" icon is not displayed in the info. box, nothing happens</li> </ol>
<b>Blue Action Button</b>	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Blue action button label is "Watch," sets the show to watch once, places show in Record/Watch Schedule, changes Blue action button label to "Cancel" and Green</li> </ol>

	<p>action button label to "Schedule," highlight turns orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></p> <ol style="list-style-type: none"> <li>2. if a Panel ad was just set to record or watch, pressing the Blue action button again <i>without leaving</i> the Panel ad will Cancel the recording or watch scheduling, change the Blue action button label back to "Watch" and the Green action button label to "Record," highlighting back to the standard highlighting, info. box returns to gray background with original text</li> <li>3. if Panel ad with show related info. is highlighted and was <i>previously</i> set to record or watch, the Blue action button label is blank, nothing happens</li> <li>4. if panel ad without show related info. is highlighted, the action button label is blank, nothing happens</li> <li>5. if Schedule destination button is highlighted, the Blue action button label is blank, nothing happens</li> <li>6. if a scheduled show tile is highlighted, the Blue action button is labeled "Remove," removes the scheduled show from the schedule and it will not be recorded or watched (if currently in progress, the recording will end)</li> </ol>
<b>Green Action Button</b>	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Green action button label is "Record," sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to "Schedule," Blue action button label to "Cancel," highlight and time slot header turn red, info. box background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>2. if Panel ad is highlighted and set to record or watch, the Green action button label is blank, nothing happens</li> <li>3. if Panel ad without show related info. is highlighted, action bar label is blank, nothing happens.</li> <li>4. if Schedule destination button is highlighted, the Green action button label is blank, nothing happens</li> <li>5. if a scheduled show tile is highlighted, the Green action button is labeled "Change," the recording or watch frequency will cycle through once, daily and weekly options; the selected option remains once the highlight is moved off the tile</li> </ol>
<b>digit keys</b>	NA, no direct dialing feature on this screen
<b>VCR Plus+</b>	<ol style="list-style-type: none"> <li>1. if Panel ad is highlighted, functions the same as pressing the Green action button</li> <li>2. if Schedule destination button or scheduled show tile is highlighted, brings up the VCRPlus+ entry screen</li> </ol>
<b>Optional Keys</b>	
<b>Menu</b>	<ol style="list-style-type: none"> <li>1. if highlight not on the Menu Bar (on a scheduled show tile or a Panel ad), jumps highlight to the Schedule destination button in the Menu Bar, the screen does not redraw</li> <li>2. if highlight on the Menu Bar, moves highlight to the top scheduled show tile, except as noted in 3 below</li> <li>3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the scheduled show list or on a Panel ad</li> </ol>
<b>Record</b>	<ol style="list-style-type: none"> <li>1. if Panel ad is highlighted, functions the same as pressing the Green action button</li> <li>2. if Schedule destination button or scheduled show tile is highlighted, nothing happens</li> </ol>
<b>Page up</b>	<ol style="list-style-type: none"> <li>1. if there is a page of scheduled show tiles above, the screen fills with a completely</li> </ol>

	<p>new set of the next 9 scheduled show tiles above, the highlight remains in the same relative location on screen; if there is not a page of data above, the highlight jumps to the top entry of the currently displayed screen; once at the top of the list, highlight moves to the menu bar; from the menu bar, pressing Page Up does nothing</p> <p>2. if a panel ad is highlighted, nothing happens</p>
<b>Page down</b>	<p>1. if the destination button is highlighted, moves down to the first visible entry in the screen</p> <p>2. if a scheduled show tile is highlighted and there is a full or partial page of scheduled show tiles below, the screen fills with a new set of the next 9 scheduled show tiles or a partial page of the scheduled show tiles below, the highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available; if the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen; once at the bottom of the list, pressing Page Down does nothing</p> <p>3. if a panel ad is highlighted, nothing happens</p>
<b>Channel up</b>	mapped to Directional Up or Page Up
<b>Channel down</b>	mapped to Directional Down or Page Down
<b>Clear</b>	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
<b>PIP</b>	nothing happens

**Table 6 - Using Messages Screen**

When a message tile is highlighted, the related message appears in the Info. Box. Messages may be multiple screens long. Availability of additional pages is indicated by the presence of the "i" icon in the Info. box.

<b>Remote Key</b>	<b>Messages Screen</b>
<b>up key</b>	<ol style="list-style-type: none"> <li>1. if message tile highlighted, moves up to the next message title (unless the top message tile is highlighted; see 2 below) until the topmost visible message tile is highlighted, then a full page of new tiles appear with the bottom row highlighted</li> <li>2. if the top message tile is highlighted, moves up to the Messages destination button</li> <li>3. if Messages destination button is highlighted, nothing happens</li> <li>4. if bottom panel ad highlighted, moves up to top panel ad</li> <li>5. if top panel ad is highlighted, nothing happens</li> </ol>
<b>down key</b>	<ol style="list-style-type: none"> <li>1. if message tile is highlighted, moves down to the next message tile until the last visible message tile is reached, then a full page of new title tiles appears with top row highlighted; if the last message tile in the list is highlighted, nothing happens</li> <li>2. if Messages destination button is highlighted, moves down to the top message tile in the message list</li> <li>3. if top panel ad is highlighted, moves down to bottom panel ad</li> <li>4. if bottom panel ad is highlighted, nothing happens</li> </ol>
<b>left key</b>	<ol style="list-style-type: none"> <li>1. if one of top 4 message tiles is highlighted, moves to top panel ad; if one of bottom 5 message tiles is highlighted, moves to bottom panel ad</li> <li>2. if Messages destination button is highlighted, the highlight moves left to the Schedule button and the Schedule appears on screen</li> <li>3. if panel ad is highlighted, nothing happens</li> </ol>
<b>right key</b>	<ol style="list-style-type: none"> <li>1. if highlight on a message tile, nothing happens</li> <li>2. if Messages destination button is highlighted, the highlight moves right to the Editor button and the Editor screen appears</li> <li>3. if panel ad is highlighted, moves to the message tile from which the first panel ad was accessed</li> </ol>
<b>Select key</b>	<ol style="list-style-type: none"> <li>1. if message tile is highlighted, nothing happens</li> <li>2. if Panel ad with show related info. is highlighted, exits guide, tunes TV to related channel; if ad does not have related show info., nothing happens</li> <li>3. if Messages destination tile in Menu Bar is highlighted, redraws the top of the screen (if not currently displayed), highlight jumps to the first entry in the screen</li> </ol>
<b>Guide key</b>	exits the guide, and tunes TV to channel displayed in the Video Window
<b>Info</b>	<ol style="list-style-type: none"> <li>1. if highlighting a message tile and an "i" icon is displayed in the info. box, causes info. box to expand and display 2nd level information; subsequent presses cycle through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>2. if highlight is on a Panel ad, cycles through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>3. if an "i" icon is not displayed in the info. box, nothing happens</li> </ol>
<b>Blue Action Button</b>	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Blue action button label is "Watch," sets the show to watch once, places show in Record/Watch Schedule, changes Blue action button label to "Cancel" and Green action button label to "Schedule," highlight turns orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>2. if a Panel ad was just set to record or watch, pressing the Blue action button again</li> </ol>

	<p><i>without leaving</i> the Panel ad will Cancel the recording or watch scheduling, change the Blue action button label back to "Watch" and the Green action button label to "Record," highlighting back to the standard highlighting, info. box returns to gray background with original text</p> <ol style="list-style-type: none"> <li>3. if Panel ad with show related info. is highlighted and was <i>previously</i> set to record or watch, the Blue action button label is blank, nothing happens</li> <li>4. if panel ad without show related info. is highlighted, the action button label is blank, nothing happens</li> <li>5. if Messages destination button is highlighted, the Blue action button label is blank, nothing happens</li> <li>6. if a message tile other than the Serial Number message is highlighted, the Blue action button is labeled "Remove," removes the message from the list; the Serial Number message is permanent and can not be removed, when highlighted the Blue action button label is blank, nothing happens</li> </ol>
<b>Green Action Button</b>	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Green action button label is "Record," sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to "Schedule," Blue action button label to "Cancel," highlight and time slot header turn red, info. box background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>2. if show title or Panel ad is highlighted and set to record or watch, the Green action button label is "Schedule," pressing the Green action button brings up the Record/Watch Schedule screen with this show highlighted</li> <li>3. if Panel ad without show related info. is highlighted, action bar label is blank, nothing happens.</li> <li>4. if Messages destination button is highlighted, the Green action button label is blank, nothing happens</li> <li>5. if a message tile is highlighted, the Green action button label is blank, nothing happens</li> </ol>
<b>digit keys</b>	NA, no direct dialing feature on this screen
<b>VCR Plus+</b>	functions the same as pressing the Green action button
<b>Optional Keys</b>	
<b>Menu</b>	<ol style="list-style-type: none"> <li>1. if highlight not on the Menu Bar (on a message tile or a Panel ad), jumps highlight to the Messages destination button in the Menu Bar, the screen does not redraw</li> <li>2. if highlight on the Menu Bar, moves highlight to the top message tile, except as noted in 3 below</li> <li>3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the message list or on a Panel ad</li> </ol>
<b>Record</b>	functions the same as pressing the Green action button
<b>Page up</b>	<ol style="list-style-type: none"> <li>1. if there is a page of message tiles above, the screen fills with a completely new set of the next 9 message tiles above, the highlight remains in the same relative location on screen; if there is not a page of data above, the highlight jumps to the top entry of the currently displayed screen; once at the top of the list, highlight moves to the menu bar; from the menu bar, pressing Page Up does nothing</li> <li>2. if a panel ad is highlighted, nothing happens</li> </ol>
<b>Page down</b>	<ol style="list-style-type: none"> <li>1. if the destination button is highlighted, moves down to the first visible entry in the screen</li> <li>2. if a message tile is highlighted and there is a full or partial page of message tiles</li> </ol>

	<p>below, the screen fills with a new set of the next 9 message tiles or a partial page of the message tiles below, the highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available; if the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen; once at the bottom of the list, pressing Page Down does nothing</p> <p>3. if a panel ad is highlighted, nothing happens</p>
Channel up	mapped to Directional Up or Page Up
Channel down	mapped to Directional Down or Page Down
Clear	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
PIP	nothing happens

Table 7 - Using Channel Editor Screen

The Channel Editor Screen allows the user to turn channels on or off and remap the channel associated with stations. Any changes made in the Editor are not saved until the user leaves the screen. Prior to leaving the Editor, any changes made on the channel lines may be canceled (all at once) by pressing the Blue action button while a channel line is highlighted prior to leaving the screen.

Remote Key	Channel Editor Screen
up key	<ol style="list-style-type: none"> <li>if channel line highlighted, moves up to the next channel line (unless the top channel line is highlighted, see 2 below) until the topmost visible channel line is highlighted, then a full page of new tiles appear with the bottom row highlighted</li> <li>if the top channel line is highlighted, moves up to the Editor destination button</li> <li>if Editor destination button is highlighted, nothing happens</li> <li>if bottom panel ad highlighted, moves up to top panel ad</li> <li>if top panel ad is highlighted, nothing happens</li> </ol>
down key	<ol style="list-style-type: none"> <li>if channel line is highlighted, moves down to the next channel line until the last visible channel line is reached, then a full page of new title tiles appears with top row highlighted; if the last channel line in the list is highlighted, nothing happens</li> <li>if Editor destination button is highlighted, moves down to the top channel line in the Editor</li> <li>if top panel ad is highlighted, moves down to bottom panel ad</li> <li>if bottom panel ad is highlighted, nothing happens</li> </ol>
left key	<ol style="list-style-type: none"> <li>if one of top 4 channel lines is highlighted, moves to top panel ad; if one of bottom 5 channel lines is highlighted, moves to bottom panel ad; if there are no channel lines, the panel ads can not be highlighted</li> <li>if Editor destination button is highlighted, the highlight moves left to the Messages button and the Messages list appears on screen</li> <li>if Panel ad is highlighted, nothing happens</li> </ol>
right key	<ol style="list-style-type: none"> <li>if highlight on a channel line, nothing happens</li> <li>if Editor destination button is highlighted, the highlight moves right to the Setup button and the First Setup screen appears</li> <li>if Panel ad is highlighted, moves to the channel line from which the first Panel ad was accessed</li> </ol>
Select key	<ol style="list-style-type: none"> <li>if channel line is highlighted, nothing happens</li> <li>if Panel ad with show related info. is highlighted, exits guide, tunes TV to related channel; if ad does not have related show info., nothing happens</li> <li>if Editor destination tile in Menu Bar is highlighted, redraws the top of the screen (if not currently displayed), highlight jumps to the first entry in the screen</li> </ol>
Guide key	exits the guide, and tunes TV to channel displayed in the Video Window
Info	<ol style="list-style-type: none"> <li>if highlight is on a Panel ad, cycles through any additional info. screens; once last screen of information is displayed, pressing the info. key closes the expanded info. box</li> <li>if an "i" icon is not displayed in the info. box, nothing happens</li> </ol>
Blue Action Button	<ol style="list-style-type: none"> <li>if Panel ad with show related info. is highlighted and not previously set to record or watch, Blue action button label is "Watch," sets the show to watch once, places show in Record/Watch Schedule, changes Blue action button label to "Cancel" and Green action button label to "Schedule," highlight turns orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>if a Panel ad was just set to record or watch, pressing the Blue action button again <i>without leaving the Panel ad will Cancel the recording or watch scheduling, change the Blue action button label back to "Watch" and the Green action button label to</i></li> </ol>

	<p>“Record,” highlighting back to the standard highlighting, info. box returns to gray background with original text</p> <ol style="list-style-type: none"> <li>3. if Panel ad with show related info. is highlighted and was previously set to record or watch, the Blue action button label is blank, nothing happens</li> <li>4. if panel ad without show related info. is highlighted, the action button label is blank, nothing happens</li> <li>5. if Editor destination button is highlighted, the Blue action button label is blank, nothing happens</li> <li>6. if a channel line is highlighted, the Blue action button label is “Cancel,” cancels any changes made since entering the Editor</li> </ol>
<b>Green Action Button</b>	<ol style="list-style-type: none"> <li>1. if Panel ad with show related info. is highlighted and not previously set to record or watch, Green action button label is “Record,” sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to “Schedule,” Blue action button label to “Cancel,” highlight and time slot header turn red, info. box background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>2. if Panel ad is highlighted and set to record or watch, the Green action button label is blank, nothing happens</li> <li>3. if Panel ad without show related info. is highlighted, action bar label is blank, nothing happens.</li> <li>4. if Editor destination button is highlighted, the Green action button label is blank, nothing happens</li> <li>5. if a channel line is highlighted, the Green action button is labeled “On/Off,” toggles the state of the channel between on and off</li> </ol>
<b>digit keys</b>	<ol style="list-style-type: none"> <li>1. if a channel line is highlighted, the channel numbers in the currently selected channel line disappear and the new digits appear as dialed; the dialed number registers once the highlight is moved off the channel tile (up, down, left, menu, Guide) or if the user presses the Select key, or Green action button; changes are not saved until the Editor screen is left</li> <li>2. if a Panel ad or a destination button is highlighted, nothing happens</li> </ol>
<b>VCR Plus+</b>	<ol style="list-style-type: none"> <li>1. if Panel ad is highlighted, functions the same as pressing the Green action button</li> <li>2. if Editor destination button or channel line is highlighted, nothing happens</li> </ol>
<b>Optional Keys</b>	
<b>Menu</b>	<ol style="list-style-type: none"> <li>1. if highlight not on the Menu Bar (on a channel line or a Panel ad), jumps highlight to the Editor destination button in the Menu Bar, the screen does not redraw</li> <li>2. if highlight on the Menu Bar, moves highlight to the top channel line, except as noted in 3 below</li> <li>3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the scheduled show list or on a Panel ad</li> </ol>
<b>Record</b>	functions the same as pressing the Green action button
<b>Page up</b>	<ol style="list-style-type: none"> <li>1. if there is a page of channel lines above, the screen fills with a completely new set of the next 9 channel lines above, the highlight remains in the same relative location on screen; if there is not a page of data above, the highlight jumps to the top entry of the currently displayed screen; once at the top of the list, highlight moves to the menu bar; from the menu bar, pressing Page Up does nothing</li> <li>2. if a panel ad is highlighted, nothing happens</li> </ol>
<b>Page down</b>	<ol style="list-style-type: none"> <li>1. if the destination button is highlighted, moves down to the first visible entry in the screen</li> </ol>

	<p>2. if a channel line is highlighted and there is a full or partial page of channel lines below, the screen fills with a new set of the next 9 channel lines or a partial page of the channel lines below, the highlight remains in the same relative location on screen or on the last entry on the new screen if the relative position is not available; if the highlight is on the last screen of data and the Page Down key is pressed, the highlight jumps to the last entry in that screen; once at the bottom of the list, pressing Page Down does nothing</p> <p>3. if a panel ad is highlighted, nothing happens</p>
<b>Channel up</b>	mapped to Directional Up or Page Up
<b>Channel down</b>	mapped to Directional Down or Page Down
<b>Clear</b>	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
<b>PIP</b>	nothing happens

**Table 8 - Using Setup Screens**

The Setup screens allow the user to access Setup and the internal Demo, modify country, ZIP or Postal code, cable or VCR settings. The initial setup screen is the only one with a Menu Bar. Once the user passes the first setup screen, they can not exit setup without going completely through it.

<b>Remote Key</b>	<b>Setup Screens</b>
<b>up key</b>	1. moves highlight up in an on-screen list 2. displays next item above in a "hidden" list (e.g. ZIP/Postal code digits, VCR, Cable Box manufacturer lists)
<b>down key</b>	1. moves highlight down in an on-screen list 2. displays next item below in a "hidden" list (e.g. ZIP/Postal code digits, VCR, Cable Box manufacturer lists)
<b>left key</b>	moves highlight left in the ZIP/Postal Code screen, otherwise, nothing happens
<b>right key</b>	moves highlight right in the ZIP/Postal Code screen, otherwise, nothing happens
<b>Select key</b>	executes action associated with highlighted selection
<b>Guide key</b>	1. if on the first Setup screen, exits the guide, and tunes TV to channel displayed in the Video Window 2. if on any other Setup screen, nothing happens
<b>Info</b>	nothing happens
<b>Blue Action Button</b>	nothing happens
<b>Green Action Button</b>	nothing happens
<b>digit keys</b>	enable direct entry ZIP/Postal Codes, on all other screens do nothing
<b>VCR Plus+</b>	nothing happens
<b>Optional Keys</b>	
<b>Menu</b>	1. on initial setup screen, jumps highlight to the Setup destination button 2. on all other screens, nothing happens
<b>Record</b>	nothing happens
<b>Page up</b>	nothing happens
<b>Page down</b>	nothing happens
<b>Channel up</b>	mapped to Directional Up or Page Up
<b>Channel down</b>	mapped to Directional Down or Page Down
<b>Clear</b>	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
<b>PIP</b>	nothing happens

Table 9 - Using the Menu Bar

The Menu Bar provides access to all of the Guide's screens. Highlighting a destination button automatically brings up the associated screen. The Menu is not circular, the Grid button is the leftmost destination button, Setup the rightmost.

Remote Key	Menu Bar
<b>up key</b>	nothing happens
<b>down key</b>	1. if Grid destination button highlighted, moves down to the top visible channel in the Grid in the left-hand time slot or on the right-hand time slot if the user had just entered the menu bar from this position 2. if any other destination button is highlighted, moves down to the first visible entry in the screen
<b>left key</b>	1. if Grid destination button is highlighted, nothing happens as Grid is the leftmost destination button 2. if any other destination button is highlighted, the highlight moves left to the adjacent destination button
<b>right key</b>	1. if Setup destination button is highlighted, nothing happens as Setup is the rightmost destination button 2. if any other destination button is highlighted, the highlight moves left to the adjacent destination button
<b>Select key</b>	if any destination button is highlighted, redraws the top of the screen (if not currently displayed), highlight jumps to the first entry in the screen
<b>Guide key</b>	exits the guide, and tunes TV to channel displayed in the Video Window
<b>Info</b>	nothing happens
<b>Blue Action Button</b>	nothing happens
<b>Green Action Button</b>	nothing happens
<b>digit keys</b>	nothing happens
<b>VCR Plus+</b>	1. if Schedule destination button is highlighted, brings up the VCRPlus+ entry screen 2. if on any other destination button, nothing happens
<b>Optional Keys</b>	
<b>Menu</b>	1. if Grid destination button highlighted, moves down to the top visible channel in the Grid in the left-hand time slot or on the right-hand time slot if the user had just entered the menu bar from this position, except as noted in 3 below 2. if any other destination button is highlighted, moves down to the first visible entry in the screen, except as noted in 3 below 3. if highlight was placed on the Menu Bar by a prior press of the Menu key and no other key presses have occurred while the highlight was on the Menu Bar, jumps highlight to where the highlight was last in the screen
<b>Record</b>	nothing happens
<b>Page up</b>	nothing happens
<b>Page down</b>	Same as the down key: 1. if Grid destination button highlighted, moves down to the top visible channel in the Grid in the left-hand time slot or on the right-hand time slot if the user had just entered the menu bar from this position 2. if any other destination button is highlighted, moves down to the first visible entry in the screen
<b>Channel up</b>	mapped to Directional Up or Page Up
<b>Channel down</b>	mapped to Directional Down or Page Down
<b>Clear</b>	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)

<b>PIP</b>	toggles the state of the Video Window between lock and unlock if in the Grid screen, otherwise nothing happens
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**Table 10 - Using Expanded Info Boxes**

The Info. Box provides additional information about shows, ads, and product function. When expanded, whether auto-expanded by highlighting a Panel Ad or by pressing the “i” button, the keys function as outlined below. There may be a series of expanded Info. Boxes, pressing the “i” button cycles through all info. screens until the last one is reached; pressing the “i” button from the last screen closes the Info. Box.

<b>Remote Key</b>	<b>Menu Bar</b>
<b>up key</b>	nothing happens
<b>down key</b>	nothing happens
<b>left key</b>	nothing happens
<b>right key</b>	nothing happens
<b>Select key</b>	<ol style="list-style-type: none"> <li>1. if Info. Box expanded from a highlighted show tile, or ad with show related info., exits guide, tunes TV to related channel; if ad does not have related show info. nothing happens</li> <li>2. if Info. Box expanded by pressing “i” button in Schedule or Messages screens, nothing happens</li> </ol>
<b>Guide key</b>	exits the guide, and tunes TV to channel displayed in the Video Window
<b>Info</b>	<ol style="list-style-type: none"> <li>1. if there are additional info. screens to follow, replaces current info. screen with the next</li> <li>2. if the last info. screen is currently on screen, closes expanded info. screen</li> </ol>
<b>Blue Action Button</b>	<ol style="list-style-type: none"> <li>1. if Info. Box expanded from a highlighted show tile or ad with show related info. and not previously set to record or watch, Blue action button label is “Watch,” sets the show to watch once, places show in Record/Watch Schedule, changes Blue action button label to “Cancel” and Green action button label to “Schedule,” highlight and time slot header turn orange, info. box background turns orange and message indicates record accepted, tunes to the show channel if the show is on now; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i></li> <li>2. if Info. Box expanded from a highlighted show title or ad that was just set to record or watch, pressing the Blue action button again <i>without leaving</i> the tile will Cancel the recording or watch scheduling, change the Blue action button label back to “Watch” and the Green action button label to “Record,” highlighting back to the standard highlighting, info. box returns to gray background with original text</li> <li>3. if Info. Box was expanded from a highlighted show title or ad with show related info. and was <i>previously</i> set to record or watch, the Blue action button label is blank, nothing happens</li> <li>4. if Info. Box was expanded from a highlighted Panel ad or Channel ad without show related info., the action button label is blank, nothing happens</li> <li>5. if Info. Box was expanded from a scheduled show tile in the Schedule, the Blue action button is labeled “Remove,” removes the scheduled show from the schedule and it will not be recorded or watched (if currently in progress, the recording will end)</li> <li>6. if Info. Box was expanded from a message tile in the Messages screen other than the Serial Number message, the Blue action button is labeled “Remove,” removes the message from the list; the Serial Number message is permanent and can not be removed</li> </ol>
<b>Green Action Button</b>	<ol style="list-style-type: none"> <li>1. if Info. Box expanded from a show tile or ad with show related info. and not previously set to record or watch, Green action button label is “Record,” sets the show to record once (records immediately if the show is on now), places it in the Record/Watch Schedule, changes Green action button label to “Schedule,” Blue action button label to “Cancel,” highlight and time slot header turn red, info. box</li> </ol>

	background turns red and message indicates record accepted; <i>Note: if a show in this time slot was already set to record or watch, the actions listed above do not occur and a conflict message appears in the Info. box</i> 2. if Info. Box expanded from show tile or ad and set to record or watch, the Green action button label is "Schedule," pressing the Green action button brings up the Record/Watch Schedule screen with this show highlighted 3. if Info. Box was expanded from an ad without show related info., action bar label is blank, nothing happens. 4. if Info. Box expanded from a scheduled show tile in the Schedule, the Green action button label is blank, nothing happens 5. if Info. Box expanded from a message tile in the Messages screen, the Green action button label is blank, nothing happens
<b>digit keys</b>	nothing happens
<b>VCR Plus+</b>	nothing happens
<b>Optional Keys</b>	
<b>Menu</b>	jumps highlight to the current screen's destination button in the Menu Bar, the screen does not redraw
<b>Record</b>	functions the same as pressing the Green action button
<b>Page up</b>	nothing happens
<b>Page down</b>	nothing happens
<b>Channel up</b>	mapped to Directional Up or Page Up
<b>Channel down</b>	mapped to Directional Down or Page Down
<b>Clear</b>	exits the Guide and displays the program that was viewed before the Guide was entered (Last Channel)
<b>PIP</b>	toggles the state of the Video Window between lock and unlock if in the Grid screen, otherwise nothing happens

**History**

v1.42stv 980213      T. Ward      Sent to Sony TV

## 4.6 Guide Screens

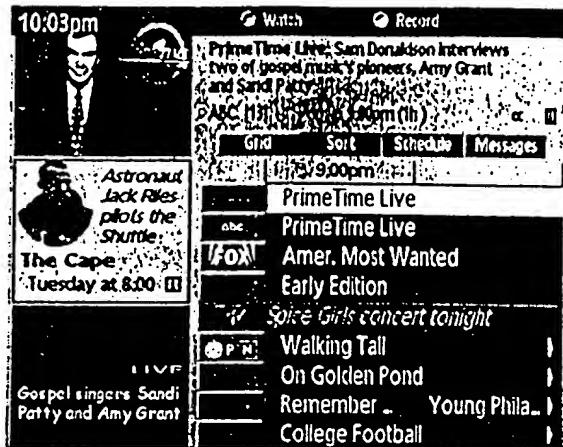
Note: The clock should read 9:03 not 10:03 upon entering the Guide.

These screens are for illustrative purposes only and are not to be used for marketing or promotional material purposes.

### Screen 1 - Entering the Guide

Upon first entering the Guide:

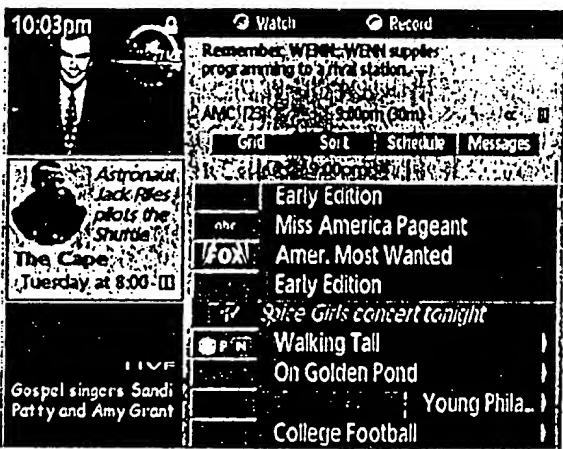
- The Grid appears.
- The channel the user is watching appears in the Video Window, it's title tile is highlighted, and appears in the top slot in the grid, labeled "Last Channel."
- The currently selected time slot is labeled in black "9:00."



### Screen 2 - Scrolling Down

The user scrolls down using the down directional arrow key.

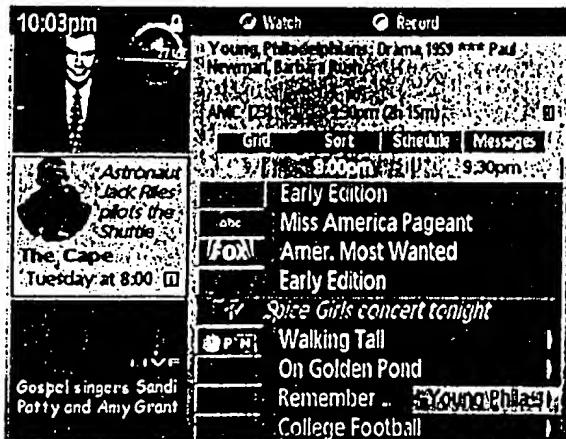
- The currently highlighted show is displayed with dark text on a light background.



### Screen 3- Scrolling into the Future

Using the right directional arrow key, the highlight is moved into the next time slot.

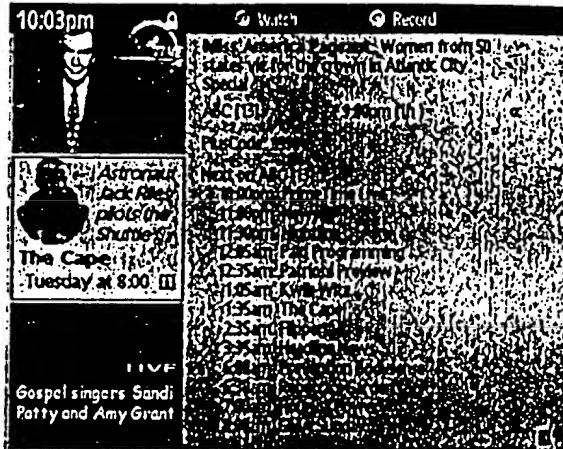
- The "9:30" time slot is now labeled in black.
- The next show on the same channel is highlighted.



#### Screen 4 - Expanded Info. Box

Pressing the Info. key expands the info. box from any show tile.

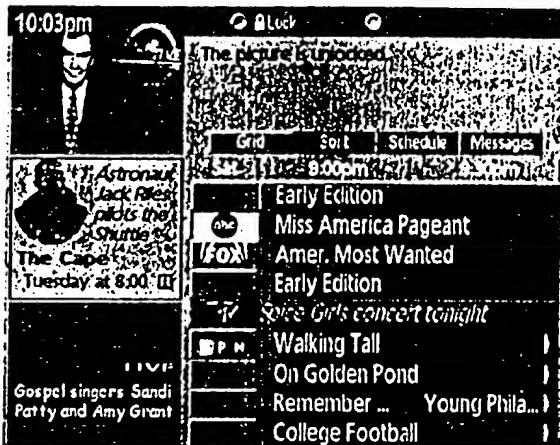
- The expanded info. box covers the entire grid area.
  - Additional show information, if any is available, is displayed.
  - The PlusCode is displayed.
  - The Shows on Next are listed, filling the remainder of the screen.
  - Pressing the Info. key again closes the expanded info box.



## Screen 5 - Unlocked Video Window

Scrolling to the column of channel tiles allows the user to lock or unlock the Video Window.

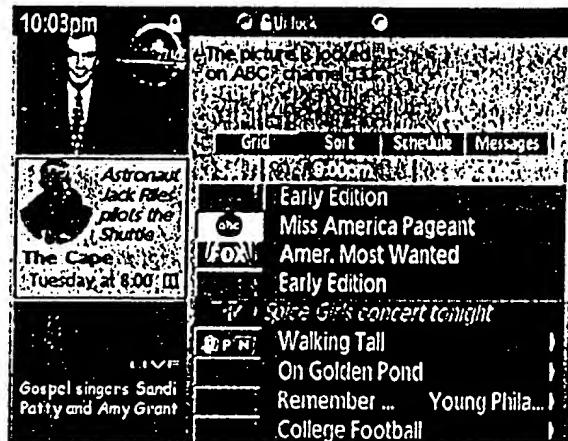
- Here the Video Window is unlocked as indicated by the message in the info. box and the lack of any icon in the Video Window.



## Screen 6 - Locking the Video Window

Pressing the Blue action button causes the Video Window to lock.

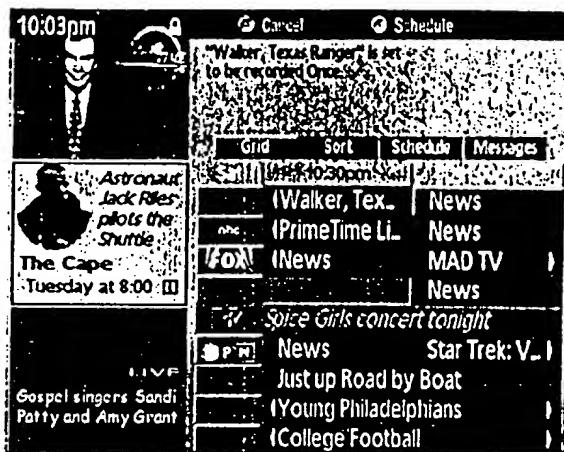
- The lock icon appears in the Video Window.
  - The text in the info. box indicates which channel the Video Window is locked onto.
  - The user may unlock the Video Window by pressing the Blue action button again.



### Screen 7 - Recording

Pressing the Green action button schedules a highlighted program to be recorded once. The tile highlight turns red, a confirmation message appears in the info. box, the action button labels change.

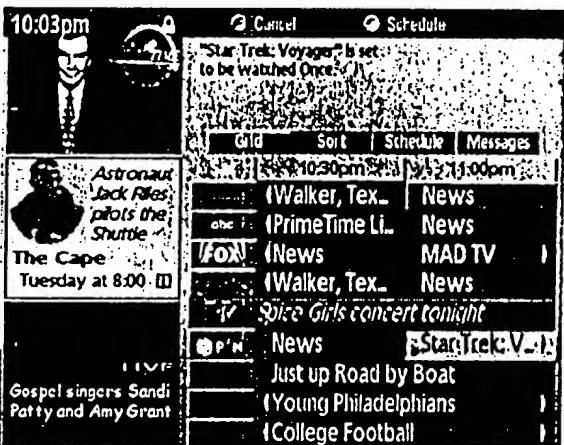
- Pressing the Green action button from any show scheduled to record or watch will allow the user to enter the Schedule to modify the recording frequency (once, daily, weekly).
- Without moving the highlight, pressing the Blue action button will cancel the recording.



### Screen 8 - Watch Scheduling

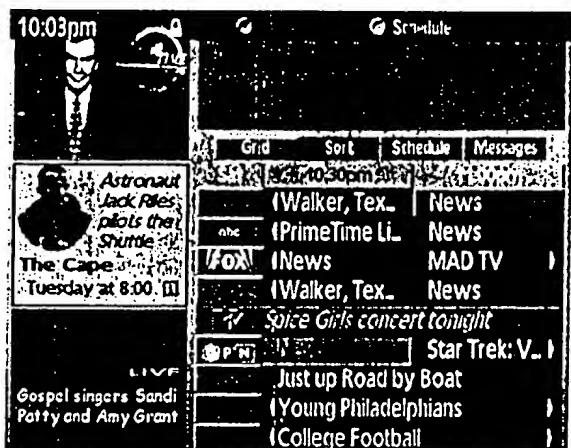
Pressing the Blue action button schedules a highlighted program to be watched once. The tile highlight turns orange, a confirmation message appears in the info. box, the action button labels change.

- Pressing the Green action button from any show scheduled to record or watch will allow the user to enter the Schedule to modify the recording frequency (once, daily, weekly).
- Without moving the highlight, pressing the Blue action button will cancel the scheduled watch.



### Screen 9 - Record or Watch Clash

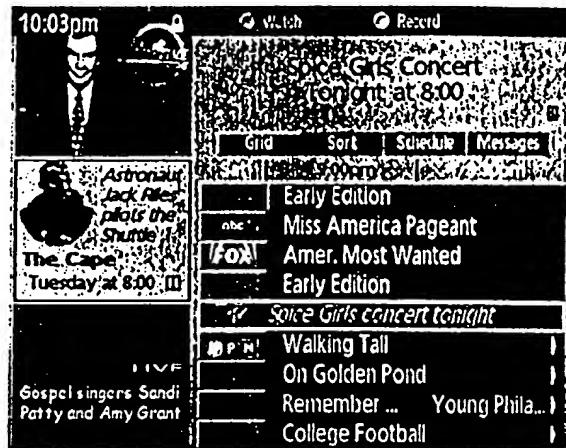
When a user attempts to schedule a recording or watch event in a time slot when a show is already scheduled to be recorded or watched, a conflict message will appear in the info. box with a red background, the tile highlight does not change, the Blue action button label is blank, the Green action button label changes to "Schedule." The user may enter the Schedule if they wish to remove the conflicting show if they wish to record or schedule a different show to watch.



### Screen 10 - Channel Ad Highlighted

When a user scrolls onto a Channel Ad:

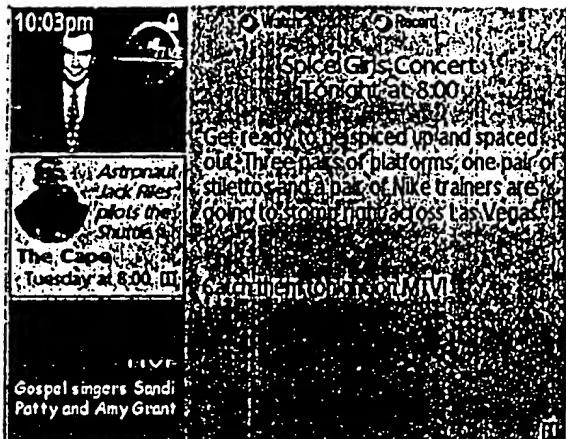
- The highlight is a yellow border around the tile.
  - Additional ad text fills the info. box.
  - The user may schedule an ad related show to record or watch.



## Screen 11 - Channel Ad Expanded Info.

Pressing the Info. key with a channel ad highlighted expands the info. box displaying additional advertising text.

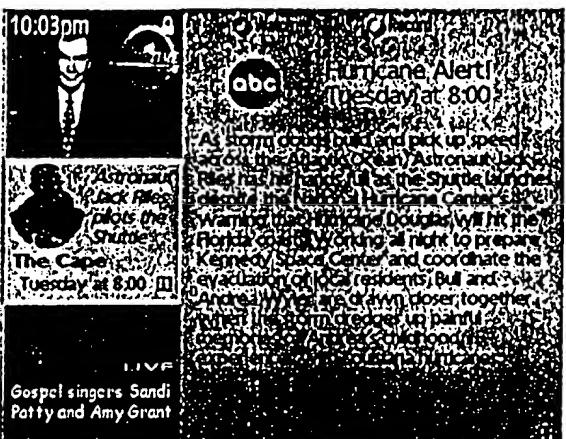
- Pressing the Info. key again will bring up additional screens of ad information until the last one is displayed, then pressing the Info. key will close the expanded info. box.



### Screen 12 - Panel Ad Highlighted

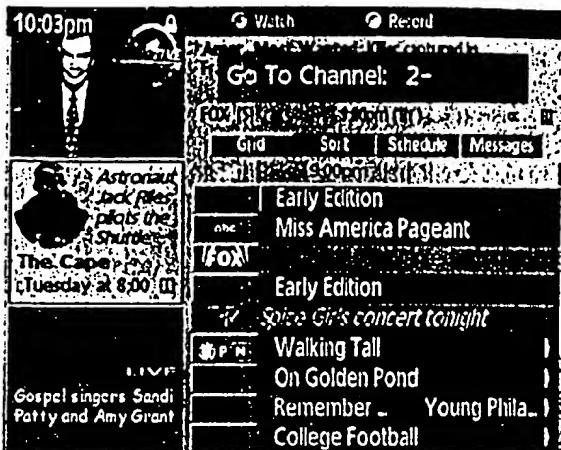
The user may scroll left from any screen to highlight a panel ad.

- The highlight is a yellow border around the ad
  - The info. box automatically expands to cover the grid.
  - The user may schedule an ad related show to record or watch.
  - Pressing the Info. key will bring up additional screens of ad information until the last one is displayed, then pressing the Info. key will close the expanded info. box.



### Screen 13 - Direct Dialing

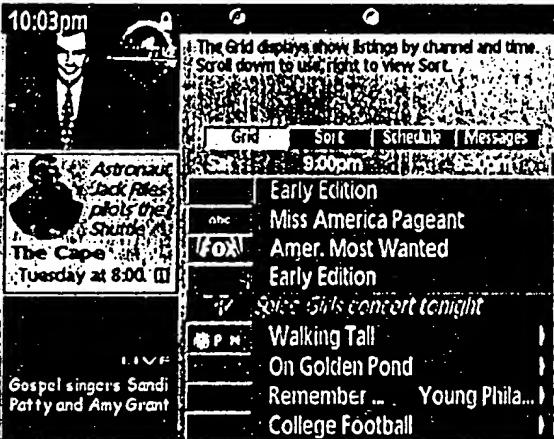
The user may jump to a channel within the grid by dialing its tuning channel number. The user dials the desired channel using the number keys on the remote. The highlight will jump to the channel. If the channel does not exist in the lineup or is turned off, feedback will appear in the info. box.



#### Screen 14 - Navigation Menu - Grid

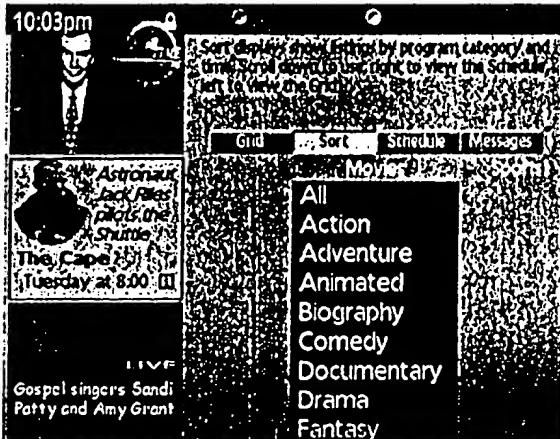
The Navigation Menu provides access to all other areas of the Guide. The menu is accessed by scrolling onto it, paging up to it or pressing the menu button.

- The Grid destination button is highlighted.
  - Help text instructs the user.



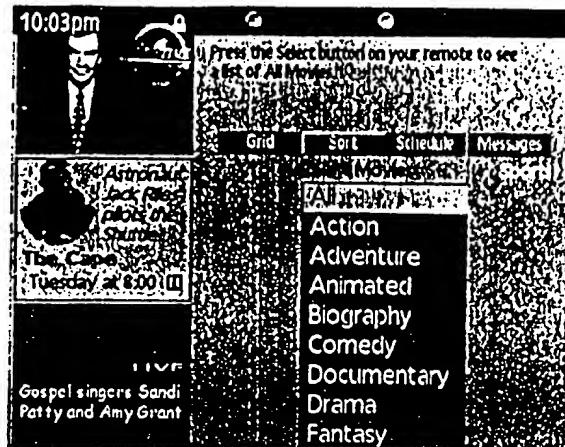
Screen 15 - Navigation Menu - Sort

Scrolling right to the Sort destination button on the Menu automatically displays the first level Sort screen. The last category used (Movies, Sports or Children's) is displayed.



### Screen 16 - Entering the Movies Sort Screen

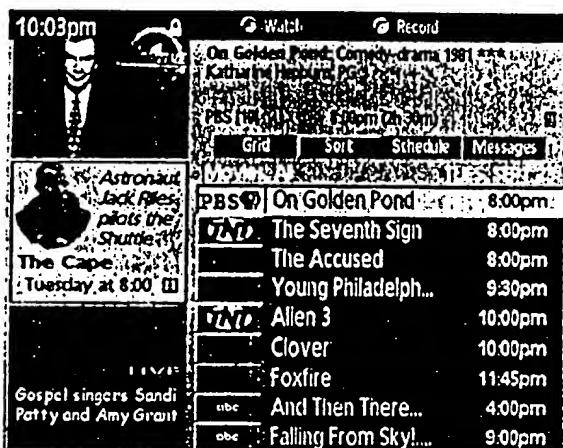
Scrolling down off the Menu places the highlight on the first sub-category for the displayed category (the first sub-category is always "All"). Scrolling right enables the user to access the other categories: Sports or Children's.



### Screen 17 - Entering the Movies Sort List

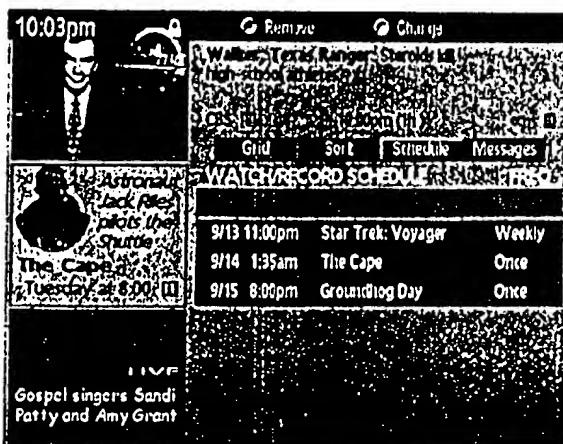
Pressing the Select key while on a desired sub-category tile displays the show listings for the show category.

- Shows are listed in chronological order.
- Shows may be recorded or scheduled to watch from this screen.
- Scrolling right will display the next day's programming for this sub-category.



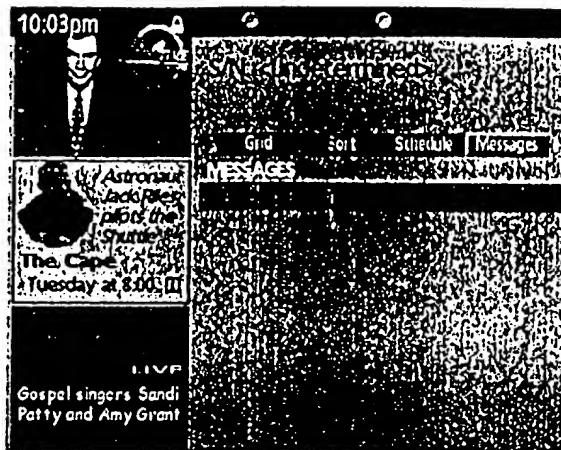
### Screen 18 - The Watch/Record Schedule

All shows scheduled to record or watch are displayed in the Schedule. Shows may be removed or frequencies set (once, daily, weekly) from this screen.

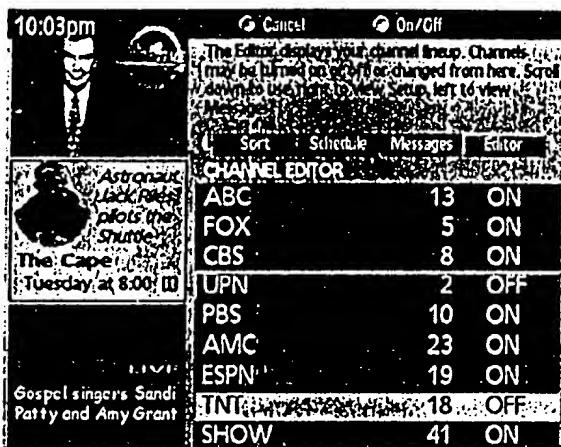


Screen 19 - The Messages Screen

Messages are displayed in the Messages screen. The serial number tile is always available.

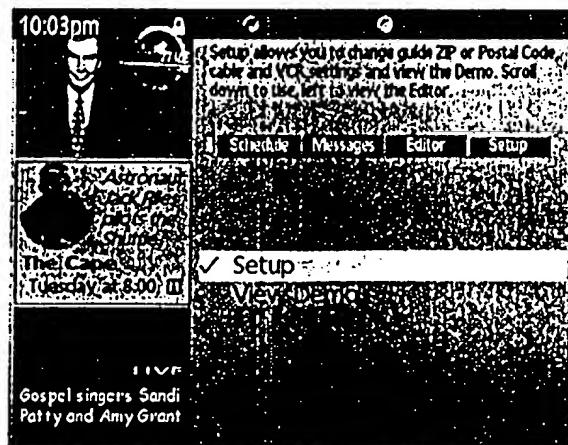
Screen 20 - The Editor Screen

The user may turn channels on or off and may change the channel mapping from this screen.

Screen 21 - The Setup Entry Screen

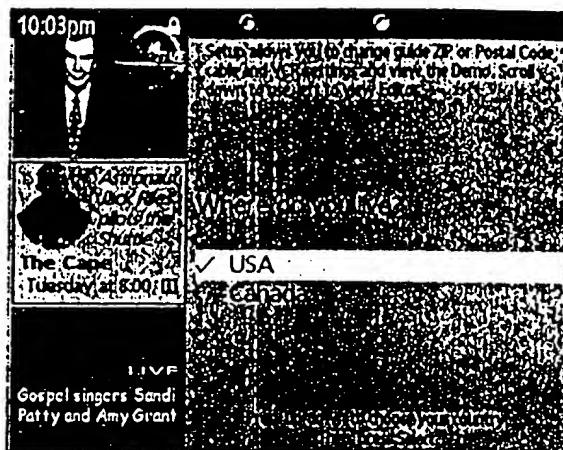
The setup entry screen may be accessed by pressing the Guide button while watching TV before the initial setup is done, from within the manufacturer menus, or from within the Guide by highlighting the Setup Menu Bar button. From this screen the user can:

- Complete initial setup.
- Modify setup settings.
- View the Demo.

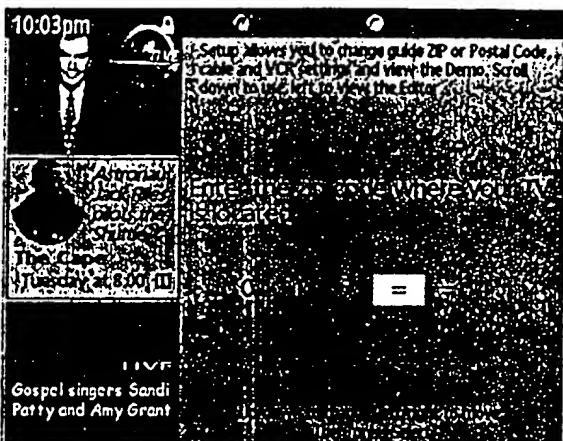


Screen 22 - Setup Country

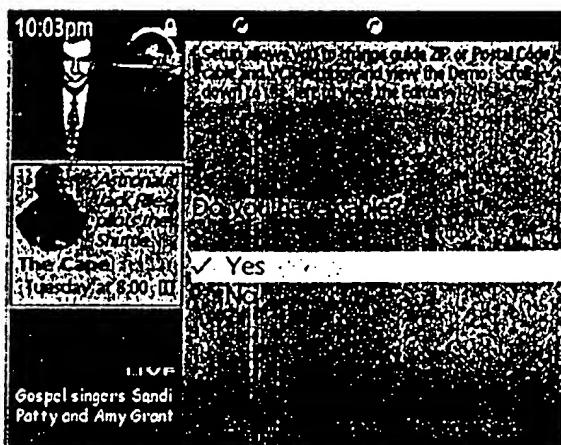
The user selects the country in which they live by scrolling up or down, then they press the Select key.

Screen 23 - Setup ZIP or Postal Code

The next setup screen asks for the user's ZIP or Postal Code depending upon their country.

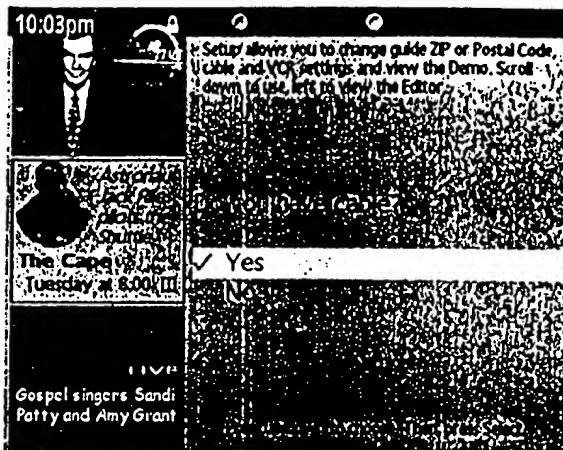
Screen 24 - Setup Cable

Then the user indicates whether or not they have cable.

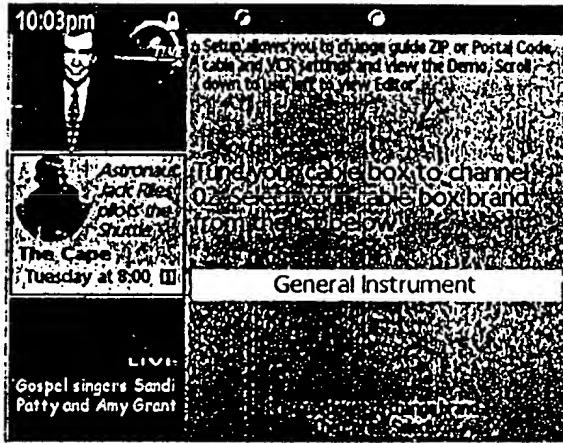


Screen 25 - Cable Box Inquiry

If the user has cable, they are asked whether they have a cable box. If they don't have cable this screen is not displayed.

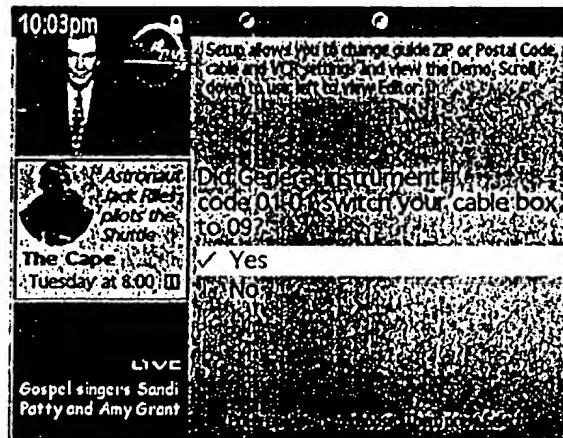
Screen 26 - Cable Box Brand Selection

If the user has a cable box, they are asked to choose their brand of cable box from an on-screen list. Pressing the Select key begins a test of the IR control of the cable box.

Screen 27 - Cable Box IR Control Test Confirm

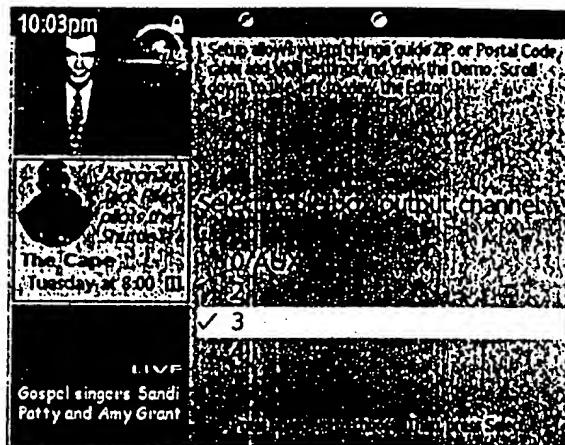
The user indicates whether their cable box was tuned to channel 9.

- If yes, Screen 28 is displayed after pressing Select
- If no, another code is tested, until all codes are tried.
- If no code correctly controls the cable box, the user is presented with a screen that asks them whether they wish to skip setting up their cable box or if they wish to try again. (See Screen 32 below for the VCR equivalent screen.) Trying again starts at the beginning of the IR codes.

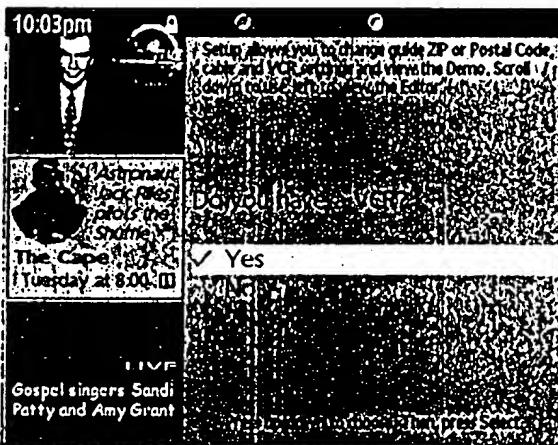


Screen 28 - Select Cable Output Channel

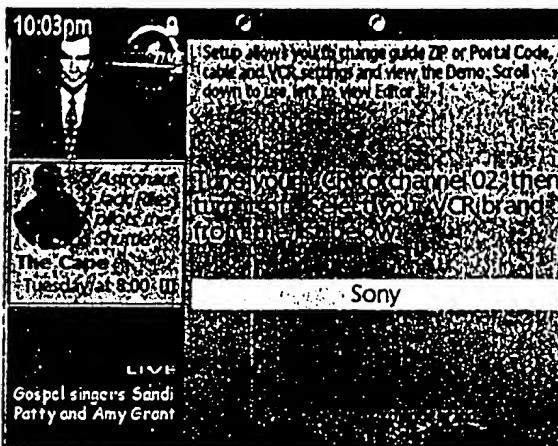
The user indicates on which channel their cable box outputs its signal.

Screen 29 - VCR Inquiry

Setup then asks whether the user has a VCR.

Screen 30 - VCR Brand Selection

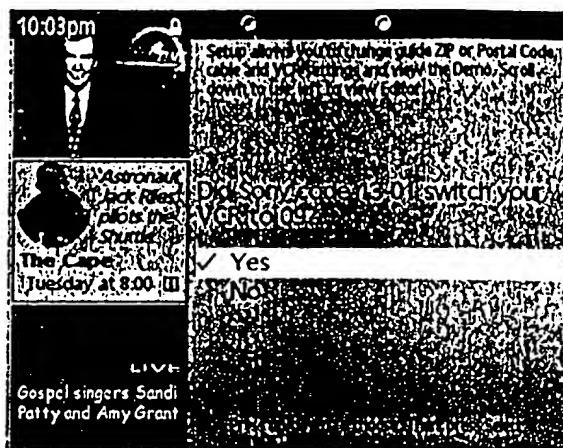
If the user has a VCR, they are asked to choose their brand of VCR from an on-screen list. Pressing the Select key begins a test of the IR control of the VCR.



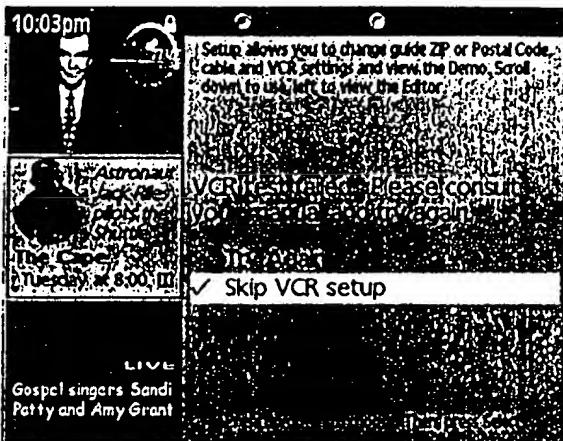
Screen 31 - VCR IR Control Test Confirm

The user indicates whether their VCR was tuned to channel 9.

- If yes, setup is complete and Screen 33 is displayed after pressing Select.
- If no, another code is tested, until all codes are tried.
- If no code correctly controls the VCR, the user is presented with Screen 32.

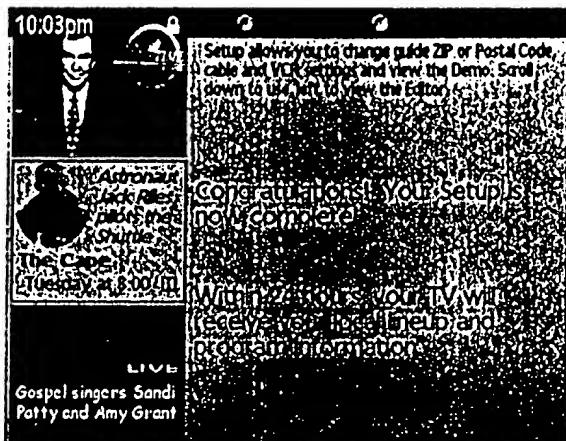
Screen 32 - VCR Skip/Retry

If no code correctly controls the VCR the user is asked whether they wish to skip setting up their VCR or if they wish to try again. Trying again starts at the beginning of the IR codes.

Screen 33 - Congratulations! Setup Complete

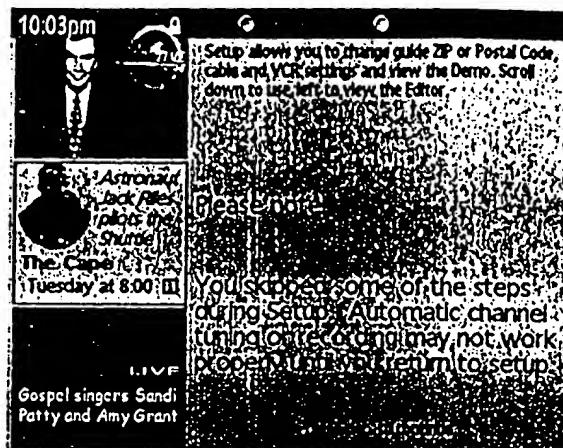
Once the user has setup or skipped VCR setup, the following Congratulations screen is displayed.

- This screen notifies the user that they may need up to 24 hours to receive data.



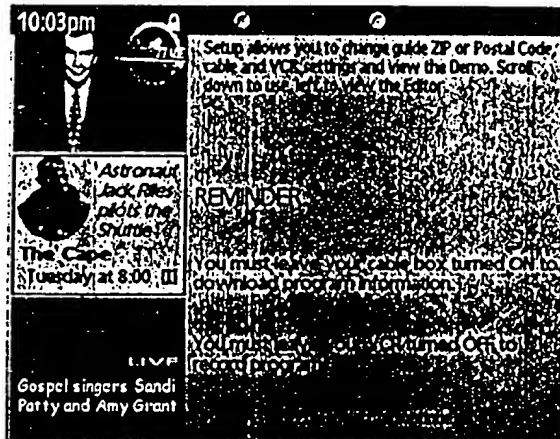
Screen 34 - Skipped Step Reminder

If a user skipped setting up their VCR or Cable box, this screen is displayed after the Congratulations screen to remind them that recording or channel tuning may not work properly.



Screen 35 - Operational Reminder

This final reminder screen is displayed for all users after the Congratulations screen to remind (or inform for the first time) the user to leave their cable box on to download data (displayed only if the user has indicated they have a cable box) and to leave their VCR turned off to record (displayed only if the user has a VCR).



## History

v1.42stv 980213

T. Ward

Sent to Sony TV